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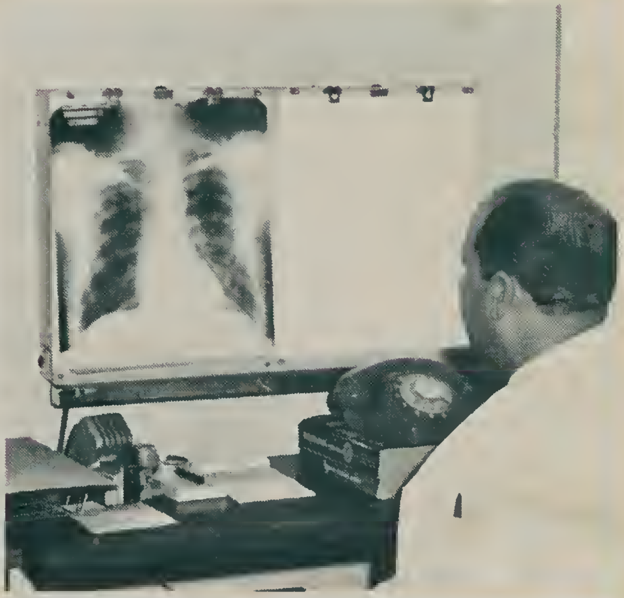
Commonwealth Department of Health
1968-69

The Annual Report of the Director-General of Health



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Annual Report
Director-General of Health
1968-69

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COMMONWEALTH DEPARTMENT OF HEALTH
CANBERRA, 1969

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The Honourable A. J. Forbes, M.C., M.P.
Minister for Health
Commonwealth of Australia

I present herewith my report of the activities of the Commonwealth Department of Health for the year ended 30 *June* 1969.

WD Refshauge

W. D. Refshauge
Director-General of Health
4 *September* 1969
Canberra, A.C.T.

Introduction

The year 1968-69 has seen improvements in the National Health Scheme and, as well, there have been achievements in the process of evaluating and reporting on the performance of the present health services.

Three important new benefits were introduced into the National Health Scheme. Special arrangements were made to pay benefits at the full insured rate for patients in approved hospitals who are suffering from chronic illnesses, for patients remaining for long terms in approved hospitals and for patients suffering from illnesses known to have been in existence before joining a health insurance fund; a supplementary nursing home benefit was introduced to assist patients needing and receiving intensive nursing home care and benefit payments were introduced for handicapped children under sixteen years accommodated and cared for in approved handicapped persons' homes.

These new benefits have been designed to aid specific groups within the population. The introduction, and the day-by-day administration, of such selective benefits imposes added requirements in terms of work loadings, professional abilities and acknowledgment of human factors by the administering authority. At the same time it is worth noting that the effective and equitable management of such benefits does require a recognition on the part of the public that the benefits are selective and that they can be allowed only for the people for whom they are intended.

The introduction of the new benefits for chronically ill and long term patients in approved hospitals, for handicapped children and for intensive care nursing home patients was achieved with only one major area of difficulty. This difficulty arose because of the necessity to assess which nursing home patients met the criteria to qualify for the intensive nursing home benefit. The legislation covering the intensive nursing home benefit came into effect on 1 January 1969 and, to 30 June 1969, 28,354 applications on behalf of patients seeking this supplementary benefit had been assessed by the Department. In many instances, since the condition of patients does not remain constant, reclassifications have also been carried out. To 30 June, some 23,054 of the 28,354 applications, or 81 per cent, had been approved and the patients received the intensive nursing home benefit. Naturally there was some dissatisfaction in cases where applications had been made for the supplementary benefit but which could not be granted because the conditions of the legislation were not fulfilled. In all 'borderline' cases, however, any doubts were resolved in favour of the patient and re-assessments of classifications were made where necessary.

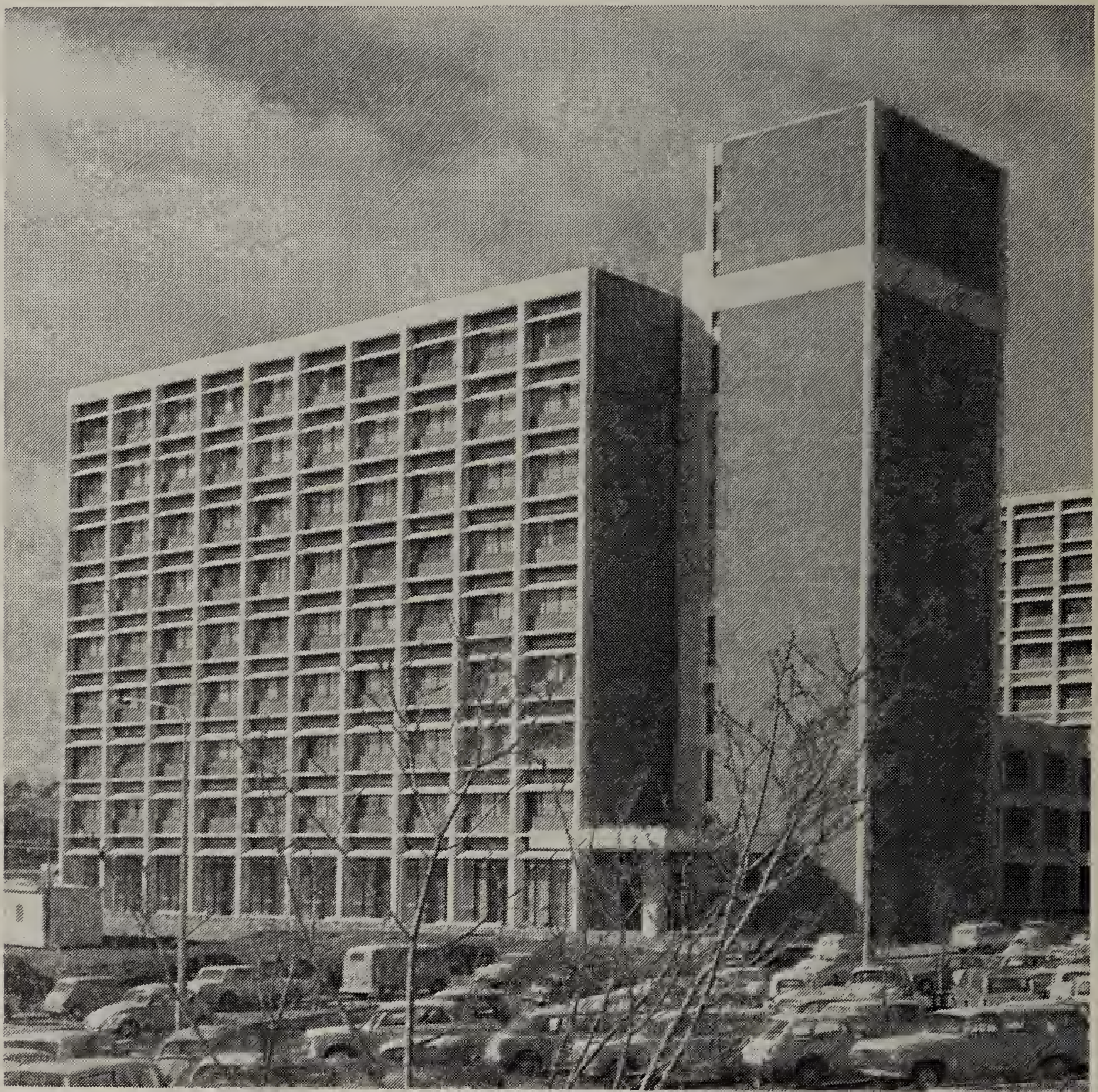
This kind of difficulty is inseparable from the process of classifying people into particular categories of need according to their medical conditions. It is, however, a necessary process if benefits designed to help people in particular need are to be transmitted to those for whom they are in fact intended.

The review of problems posed by the costs of health services and questions of financial responsibility reached a significant milestone during the year with the publication of the report of the Commonwealth Committee of Enquiry into Health Insurance. At the same time a Select Committee of the Senate was continuing its investigations of medical and hospital costs. Senior officers of the Department were seconded to provide technical advice for these major investigations and many other officers and sections of the Department provided information for the committees.

A considerable amount of work has also been carried out by the Department, in conjunction with other Departments, in investigating proposals and preparing information on subjects within the health and welfare field. One such project was the negotiation with State authorities of an agreed plan of approach towards a co-ordinated programme of home care services. This programme subsequently became the subject of an offer of financial assistance by the Commonwealth to the State Governments for the establishment and support of home help services, of senior citizen centres and of selected para-medical services.

Management

Concurrently with work related to the investigation and planning of new health services, the management of the existing services continued as the major activity of the Department. In 1968-69 the Department supervised the expenditure of $330m on health services, grants and benefits and administered legislation contained in the Acts covering Commonwealth activities in the field of health.



The Alexander Building, new Headquarters of the Commonwealth Department of Health at Phillip, Canberra

In May of 1969 the Department's Central Office staff moved from the Administrative Building, in Parkes, Canberra, and from other office premises, to a new nine-storey building at Phillip, in the Woden Valley. This move has brought together all of the Central Office functions of the Department in one building and will be a considerable factor in the convenience of operation of many of the day-to-day clerical and management activities of the Department.

National Health benefits

Spending on National Health benefits rose by $28.5m during the year to a total of $270.9m in 1968-69. The introduction, from 1 January 1969, of the supplementary benefit for intensive nursing home care, of benefits for handicapped children and of guaranteed hospital benefit payments for long term and chronic patients was a significant factor in the increased budget, but the full impact of these provisions will not be felt, of course, until 1969-70. Supplementary benefits for intensive nursing home care amounted to $5.4m while payments by the Commonwealth in respect of special account deficits increased by 58 per cent to $7.1m in 1968-69.

In total, hospital benefits increased by $4.0m, nursing home benefits by $7.2m, medical benefits by $3.1m and payments to doctors under the Pensioner Medical Service by $0.8m. By far the greatest increase in absolute terms however was in the cost of the Pharmaceutical Benefits Scheme which rose by $13.2m. This compared with increases of $9.6m in 1965-66, $9.5m in 1966-67 and $3.9m in 1967-68.

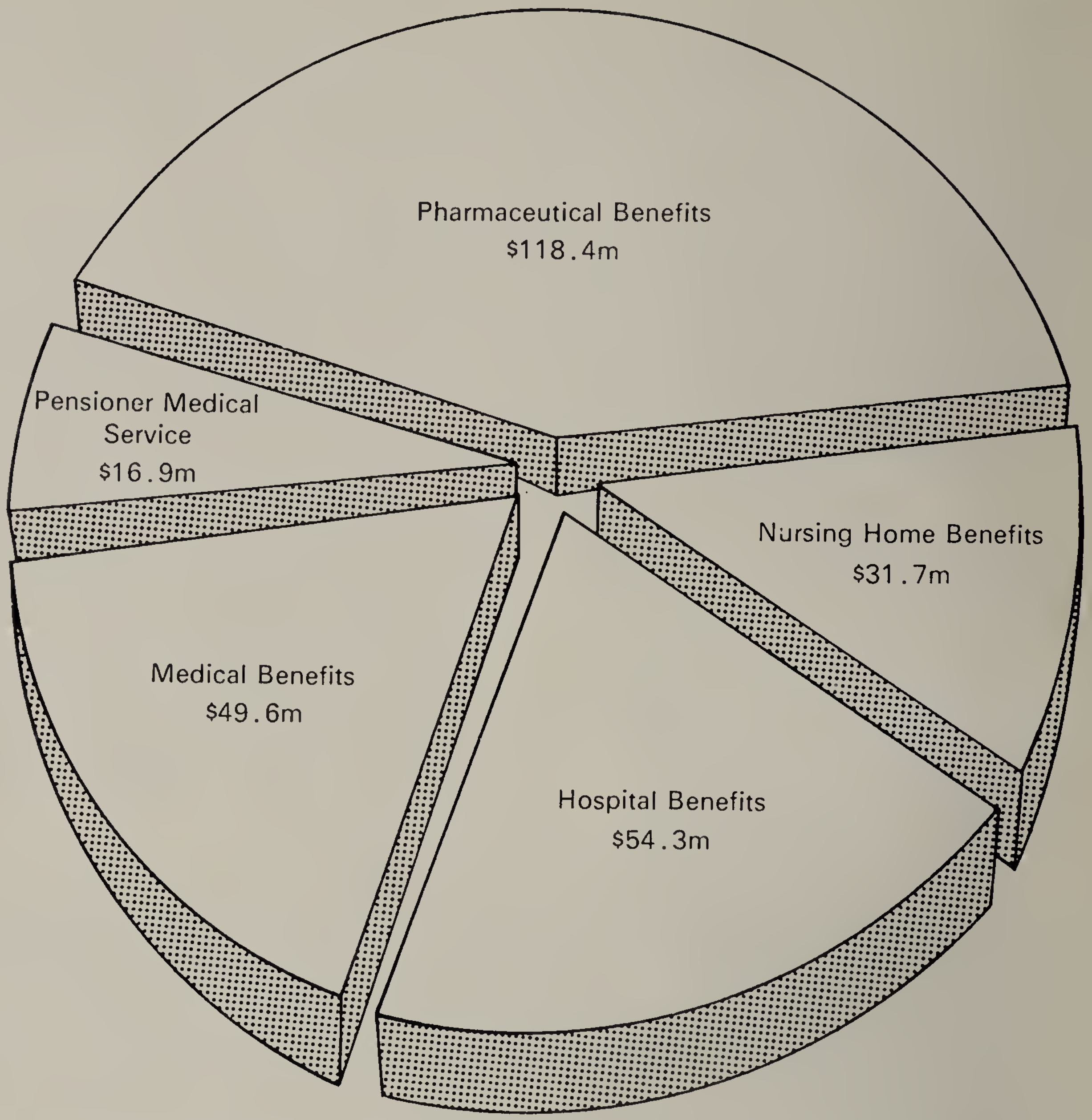
The sharp rise in expenditure was accompanied by a significant increase in the number of prescriptions written per head of population. This increase, of the order of 6.7 per cent, was the second highest since the scope of the pharmaceutical benefits scheme was widened in 1960-61 and took the average number of prescriptions per head from 4.65 in 1967-68 to 4.96 in 1968-69.

There are a number of reasons, apart from the natural increase due to population growth, for the increased expenditure on pharmaceutical benefits in 1968-69. Briefly, these include the addition of new drugs and preparations to the list of benefits; widespread outbreaks of influenza and associated respiratory ailments during the winter of 1968 and accelerated prescribing of relatively high cost drugs. Among the new types of drugs added to the list of benefits are two of particular interest, namely influenza vaccine and a group of drugs for the treatment of asthma. These additions, in conjunction with other drugs added to the list, resulted in a rise of $2.9m. in Commonwealth expenditure in 1968-69.

Price reductions were negotiated for many drugs during 1968-69 but, of course, the effects of these were merely to reduce the unit costs of certain drugs. The combination of the natural population growth factor, new additions to the list of benefits, increased prescribing volumes and the relatively heavy prescribing of high cost drugs, by far outweighed the savings which resulted from price reductions. (A table published on page 20 in the Pharmaceutical Benefits chapter of this report illustrates the relative usage of high cost drugs.)

These factors highlight once again the continuing problem of providing a comprehensive range of pharmaceutical benefits while endeavouring to keep the ultimate cost to the public purse within reasonable bounds. The core of this problem is that chemotherapy and pharmaceutical innovation are continually offering more opportunities for treatment or prevention of disease and that the momentum of this process creates very real cost pressures because new drugs, largely due to the costs of development, are often highly priced.

COMMONWEALTH EXPENDITURE ON NATIONAL HEALTH BENEFITS 1968-69



The dilemma created by the momentum of pharmaceutical innovation is not only one of cost. There is an even more important consideration and this is the general question of the amount of drugs being used. There are many facets to this question and they are the subject of much debate within the medical profession. As with the question of costs, there is no simple answer but the fact that there is much responsible debate on these subjects is the best guarantee that the problems will be kept under public scrutiny.

Influenza situation

The situation which developed in Australia in the first half of 1969 over the likelihood of an epidemic of a new strain of A2 influenza highlighted a difficult public health problem. This is the difficulty of conveying advice about, and preventive measures against, a disease to particular groups of people who may benefit from prophylactic treatment within a climate of public apprehension out of proportion to the seriousness of the disease.

A widespread state of public apprehension about the risks of a 'Hong Kong' influenza epidemic developed during the late summer and autumn, and this led to an unprecedented public demand for influenza vaccine. In fact, outbreaks of influenza due to this new 'Hong Kong' strain in a number of overseas countries had shown that the illness caused was generally relatively mild and widespread outbreaks occurred in only a few countries. Responsible public health authorities in Australia concluded that only certain special groups known to be at higher risk from influenza would derive particular benefit from vaccination.

The Commonwealth Government decided to make influenza vaccine available as a pharmaceutical benefit for pensioners. Pensioners include a large proportion of the groups at higher risk and could least afford to pay for vaccination. However, the demand from all sections of the community, including those at very low risk, quickly created temporary shortages in the supply of vaccine for pensioners. This received further publicity and helped create even greater demands by the general public.

At the end of the 1968-69 financial year some five million doses of influenza vaccine had been distributed by the Commonwealth Serum Laboratories, fulfilling almost all of the orders to that time. This distribution compared with an annual average yearly distribution of some 500,000 doses over the past five years. There were only two isolations of 'Hong Kong' influenza in the first half of the 1969 winter up to the end of June, and the indications were that the anticipated outbreak, even if widespread, would be relatively mild, partly due to the large amount of vaccine used.

Measles vaccine

During the year, after consideration of recommendations made by the National Health and Medical Research Council, the Commonwealth Government decided to make measles vaccine available to the States for use in mass immunisation campaigns for children aged one to nine years. The National Health Act was amended to enable these arrangements with the States to be made. The decision to make the vaccine available was made to reduce the morbidity and permanent injury caused by measles.

Inoculation against measles is now a well established procedure in the United States of America, where approximately thirty million children have been immunised, and in the United Kingdom, where approximately two million doses of vaccine have been used. Although both countries have reported a very low incidence of serious complications involving the central nervous system, amounting to approximately one in a million, this is very significantly lower than the incidence of such complications with natural measles. Coupling this with the reduction in other morbidity due to measles, it was considered that the introduction of measles vaccination into Australia would be a valuable public health measure. Accordingly arrangements were made to make available to the various States a vaccine which had been shown to be safe and effective in more than a million children in the United Kingdom and which was readily available.

However in March 1969, just as immunisation campaigns were commencing in Australia, the vaccine manufacturer withdrew the vaccine. This action was taken following reports of three cases of severe nervous system disorders occurring in association with measles vaccination within a short space of time. The Department will continue to study overseas work on measles so that a recommendation can be made as soon as possible on an alternative, safe and effective vaccine.

Tuberculosis

In 1968 there was an increase in three States in the number of new cases of tuberculosis notified to the health authorities. This was the second year in succession in which there was an increase in notifications in some States. In 1967 there were increases of ten notifications in South Australia and eight in Western Australia. In 1968 there were increases of twenty-five notifications in Queensland, nine in Western Australia and one in Tasmania.

At the same time as the increases in notifications occurred in particular States there was, in 1968, a drop in the total notifications for Australia of only sixty compared with reductions of 296 in 1967, 354 in 1966 and 543 in 1965.

Although small, the increases which have occurred in notifications in individual States in the past two calendar years in this important index of tuberculosis control give cause for concern. These increases have reversed the pattern maintained for many years of regular falls in notifications and suggest a need for re-examination and strengthening of control procedures.

It is difficult to assess at this stage the full significance of these most recent figures and, since Australia's tuberculosis notification rates are low by world standards, there is no ready guidance to be drawn from experience in other countries. The figures are, however, a warning against any relaxation of the efficiency of our control efforts.

In the past twenty years a very great degree of control over tuberculosis has been achieved in Australia. But it would hardly be wise to jeopardise the results which have been achieved so far by failing to carry through strict control measures until the final, stubborn remaining part of the problem has been dealt with. And it is also worth noting that the nature of these types of public health problems is often such that the achievement of the final part of the desired result can be even more demanding in terms of professional expertise than the earlier work which produced the most dramatic results in terms purely of volume.

Quarantine

Container cargo shipping began in Australia in the first half of 1969 and, with it, a new era in quarantine controls. New methods of checking and inspection of cargo shipped in containers had been worked out in great detail in readiness for the advent of this new form of cargo shipment. Since speed of handling is a vital element in the container cargo concept, the quarantine methods adopted had to be such as to ensure the protection of human, animal and plant health in Australia and, at the same time, to allow loading and unloading cycles to proceed without undue interruption.

It is pleasing to be able to record that, with an excellent level of co-operation by the operators, the quarantine procedures adopted have so far proved most satisfactory. At the time of writing, only ships run by United Kingdom operators had been involved in the new procedures and it was evident that these operators had engaged in careful planning so as to meet quarantine requirements and to avoid any misunderstandings or delays. It is hoped to achieve the same level of co-operation from the container cargo operators from other countries soon due to begin shipping to Australia.

Another new development with significant implications for the quarantine service will be the beginning of 'Jumbo' jet flights to Australia in 1970-71. Because of the size and passenger carrying capacity of these aircraft and the expected short transit times at route ports, detailed planning to overcome the quarantine problems which these factors present is necessary. This planning has been begun and it is hoped that, as in the case of container cargo shipping, procedures can be devised which do not seriously interfere with the timetables of these new aircraft, their passengers or cargo and yet which continue to give the optimum level of quarantine protection.

Laboratory services

Demand for the services provided by the Department's specialised laboratories increased again during 1968-69. The steadily increasing range and volume of therapeutic products has meant increased work loads for the National Biological Standards Laboratory; the call for advisory services in the physical aspects of medical radiology, for radioisotopes, for the surveillance of levels of radioactivity and the emerging need for the provision of advice on hazards associated with the use of lasers, masers and microwave radiation have meant a busy year for the Commonwealth X-Ray and Radium Laboratory; testing of dental materials, work towards the setting of new standards and the provision of advice by the Commonwealth Bureau of Dental Standards has continued at a high level; the Commonwealth Acoustic

Laboratories during the year completed the introductory stages of the scheme for providing hearing aids for pensioners and the establishment of this service and, at the same time, advanced their other clinical services and research and advisory functions; the Commonwealth Health Laboratories continued their heavy programmes of diagnostic testing.

One problem common to the laboratory services is the difficulty of recruiting sufficient professional and technical staff to maintain existing work loads and to meet new commitments. This problem has been particularly acute in the past year in the Commonwealth Health Laboratories.

A variation of this general problem has been experienced by the Commonwealth Acoustic Laboratories in operating the hearing aid service for pensioners. When this service was begun no unusual difficulty was found in recruiting psychologists to assess patients' hearing difficulties. In the past year, however, there has been a heavy staff turnover of qualified psychologists engaged in this work.

Uniform drug controls

Significant progress was made during the year towards the achievement of uniform controls over therapeutic goods throughout Australia. Following the approval by Federal Parliament of the Therapeutic Goods Act in 1966 a working party comprising representatives of the Commonwealth and State Departments of Health in 1967 began working towards uniform controls.

Since its inception the working party has developed a uniform recall procedure for dangerous and sub-standard drugs and a code of good manufacturing practice for use by the pharmaceutical industry. The industry collaborated willingly at all stages in the preparation of the code and its practical contributions have proved most valuable. The code is designed to be used as the basis of a licensing system for the manufacture and importation of therapeutic goods.

Another project on which progress has been made by the working party has been the development of a code of radiation sterilisation of medical products. When completed this code is designed for incorporation within the code of good manufacturing practice.

Aboriginal child health

In the Northern Territory the Department administers a comprehensive range of health services and these are continually being expanded in line with the development of the Territory. Excellent work is being done in all areas of the health services but perhaps the most encouraging single feature during the past year was the further evidence of a decline in the infant mortality rate amongst Aboriginals. The greatest problems in the Territory are still those of personal and community health among the Aboriginals and, in particular, of child health. A long-term campaign to improve the health of Aboriginal children is now showing increasingly good results.

The fall in the infant mortality rate amongst Aboriginals has brought a sharp increase in the numbers of children, particularly in the under five age group, and the special efforts being made to provide care for these children have in turn put pressure on the health services.

This situation has shown up most dramatically at the Alice Springs Hospital where, in 1968-69, the percentage of beds occupied by children approached the 50 per cent mark. A special intensive care unit for paediatric patients has been established at the hospital since it is not expected that there will be any lessening of demand for this type of care in the near future. A tribute must be paid to the devotion and sheer hard work of the staff at Alice Springs, who have performed wonders under unfavourable conditions throughout the busiest year in the history of the hospital.

Medical and Hospital Benefits

The past year saw a number of significant developments in medical and hospital benefits. These were directed towards assistance to people suffering from chronic and long term illnesses and to the aged. They took the form of extended hospital benefits, an additional benefit for nursing home patients, a new benefit for handicapped children and proposed grants to the States to assist in providing nursing home accommodation and paramedical services to people in their own homes.

HOSPITAL BENEFITS

In 1968-69 Commonwealth benefits paid towards meeting the cost of hospital treatment amounted to $54.30m. This amount was comprised of:

	$
Payments on behalf of insured patients	27.54m
Payments on behalf of uninsured patients	2.24m
Payments on behalf of pensioner patients	24.52m
Total	54.30m

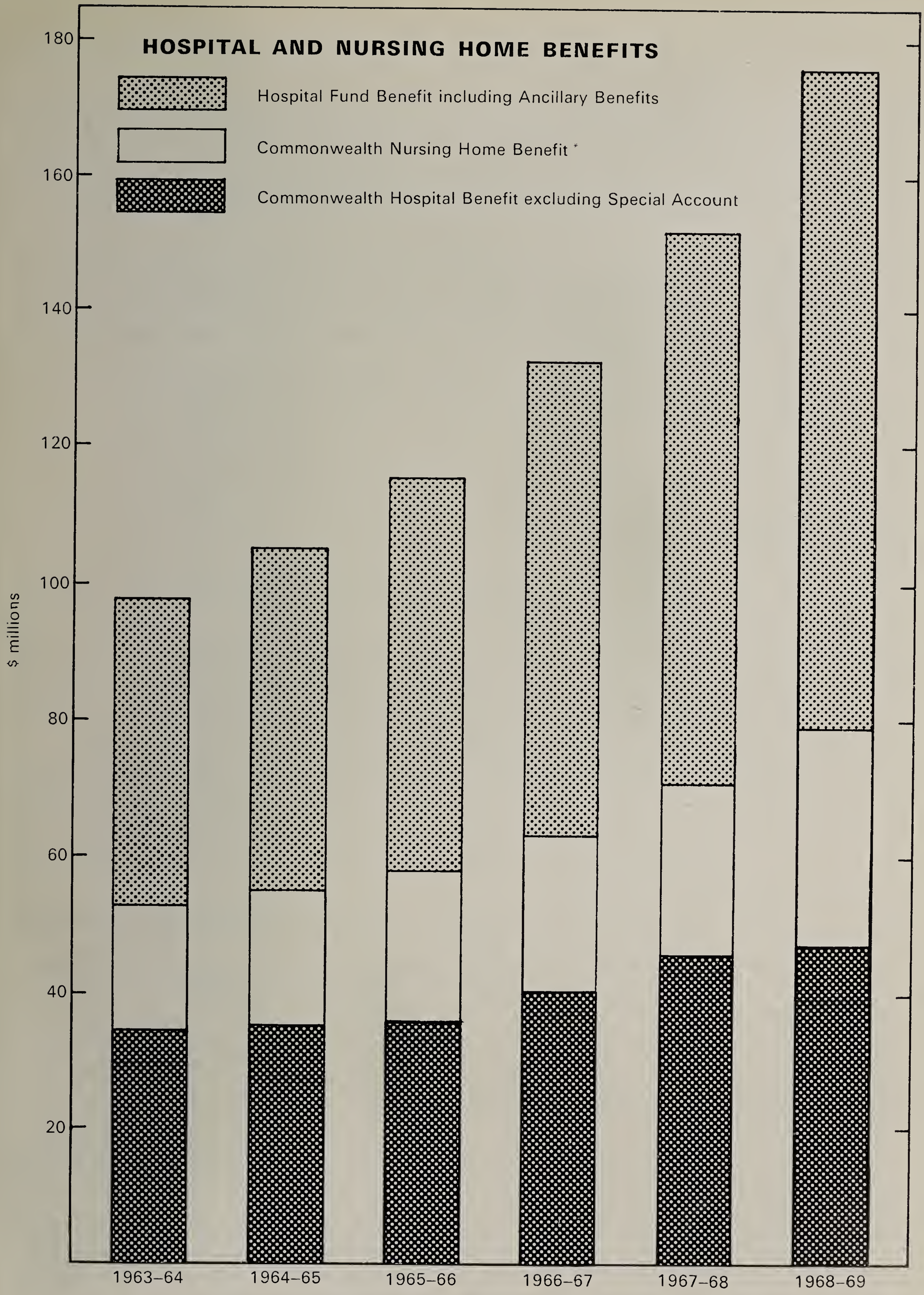
Extended hospital benefits

An important development in the hospital insurance scheme flowed from the 1968-69 Budget, which made provision for extended hospital benefits designed specifically to aid people with chronic and long term illnesses.

The introduction of these benefits resulted in a review of the Special Account system, and was effected by an amendment to the Special Account provisions of the National Health Act which became operative on 1 January 1969. Previously, where a fund had established a Special Account, a contributor whose claim could have been reduced or disallowed under a maximum benefit, chronic illness or a pre-existing ailment rule, received a 'standard rate benefit' of $5 a day ($3 a day fund and $2 a day Commonwealth benefit). This benefit was financed by the Commonwealth, as insurance funds usually could not pay benefits in these circumstances.

The amendment to the Act means that, in effect, the Commonwealth now underwrites the full insured benefit entitlements of a patient for the whole period of hospitalisation. The level of payment in these cases, however, is limited so that benefits payable do not exceed the total hospital charge, including the normal additional charges such as for theatre fees and drugs. This extension means that all people who are insured to an appropriate level need have no fear of the cost of hospitalisation, no matter how long they receive hospital treatment.

It should be noted that the extended benefits cover only insured patients accommodated in premises approved as hospitals under the National Health



* Includes Handicapped Childrens Benefit

Act. The reference to the cost of hospitalisation being met, no matter how long a person remains in hospital, is used in this context.

The benefits do not cover patients accommodated in premises which, although licensed or registered in a State as a hospital, are only approved as nursing homes under the Act. Discussions on the problems associated with the designation of approved nursing homes as 'hospitals', have taken place between the Commonwealth and States but, at the time of writing, had not yet been finalised.

Increased hospital charges

During the year the daily rate of fees charged by public hospitals rose in New South Wales, South Australia and the Australian Capital Territory. As a result of these increases, health insurance funds in the two States and the A.C.T. introduced new hospital benefit tables to enable contributors to cover the new fees.

Statistics relating to hospital benefits are set out in tables 2 to 11 on pages 110 to 113.

NURSING HOMES

In 1968-69 Commonwealth benefits paid towards meeting the cost of nursing home treatment amounted to $31.7m.

As part of its plan to widen the scope of the National Health Scheme to provide extra financial assistance for persons suffering with chronic and long term illnesses, the Government introduced, on 1 January 1969, an additional supplementary benefit of $3 a day for patients in approved nursing homes requiring and receiving 'intensive' nursing care.

Patients who are classified as needing intensive care, as defined in the National Health Act, receive a supplementary benefit of $3 a day in addition to the ordinary benefit of $2 a day. As with the ordinary benefit, patients are not required to be insured to receive this supplementary benefit. The new benefit, like the ordinary benefit, is paid to the proprietor of the nursing home, who is required to offset it against the amount of the nursing home charge to the patient.

During the first six months of operation the supplementary benefit cost the Commonwealth $5.6m.

Statistics relating to nursing home benefits and approved nursing homes and beds are set out in tables 12 to 17 on pages 113 to 115.

HANDICAPPED CHILDREN'S BENEFIT

A new benefit of $1.50 a day for handicapped children was introduced on 1 January 1969 and marked the entry of the Commonwealth into a new field of social welfare.

The new benefit is provided on behalf of each child under the age of sixteen years residing in a home conducted by a religious or charitable organisation which employs nursing and special staff for such children. The benefit applies to both physically and mentally handicapped children. In its first six months of operation this benefit cost the Commonwealth $76,020.

HOME CARE PROGRAMME

Progress was made during the year towards a comprehensive, co-ordinated programme of home care for people, particularly the aged, who may best be helped by services made available to them within their domestic environments. Two Acts passed by Parliament in 1969 have the effect of offering Commonwealth financial assistance to the States for the provision of para-medical and supportive services to people in their own homes and for provision of nursing home beds for people of little means.

The Commonwealth offers to the States envisage Commonwealth expenditure of $1.25m a year, on a matching dollar for dollar basis, for home care services and of $5m over the next five years, also on a matching basis, towards the capital cost of providing State nursing homes.

Apart from home nursing services, which the Commonwealth already subsidises by grants (details are in the Commonwealth Grants chapter of this Report), the major components of the home care programme which the Commonwealth is offering to subsidise under the new legislation are housekeeper and home help services, senior citizen centres and para-medical services. The Commonwealth is offering, through the Department of Social Services, $500,000 a year towards housekeeper and home help services and $500,000 a year towards senior citizen centres and, through the Department of Health, $250,000 a year towards para-medical services such as physiotherapy, occupational therapy, speech therapy, chiropody and similar services approved by the Minister for Health.

The legislation to subsidise the capital costs of State nursing homes recognises that there is a shortage of low-cost nursing home accommodation of acceptable standard throughout Australia. The proposed scheme provides that, subject to prior approval of the Commonwealth Minister for Health, expenditure by a State for new nursing home accommodation will attract a subsidy from the Commonwealth. It envisages that the sum of $5m is to be made available to the States, broadly on a population basis, in respect of expenditure incurred by the States over the five years commencing 1 July 1969.

MEDICAL BENEFITS

Commonwealth Medical Benefits expenditure in 1968-69 amounted to $49.6m.

Following a meeting of the Commonwealth Health Insurance Council held in November 1968, fund benefits in the ceiling tables for general practitioner and specialist consultations (Items 1, 5, 8 and 14 of the Commonwealth Medical Benefits Schedule to the National Health Act) were increased without any increases in contribution rates. These benefit increases applied to all States except Western Australia and came into operation on 1 February 1969.

A further development during the year was the application by a number of funds covering all States for the abolition of their rules which excluded from benefits persons suffering from alcoholism, drug addiction, venereal disease and deliberately self-inflicted wounds. The applications were approved by the Minister for Health.

Statistics relating to medical benefits are set out in tables 19 to 26 on pages 116 to 119.

PENSIONER MEDICAL SERVICE

The number of pensioners and dependants enrolled in the Service continued to increase during the year, reaching 1,163,660 at 30 June 1969, compared with 1,114,541 at 30 June 1968. The total number of pensioners and dependants enrolled represents some 9.5 per cent of the population.

At 30 June 1969 the number of doctors participating in the Service was 6,417 compared with 6,333 enrolled at 30 June 1968.

The total payments by the Commonwealth to participating doctors totalled $16.9m, an increase of $0.79m over the figure for 1967-68. This increase was attributable to the normal growth in the number of pensioners and their dependants eligible for the benefits of the Pensioner Medical Service. The average annual payment to each participating doctor during the year was $2,665.

As a result of negotiations between the Commonwealth and the Australian Medical Association, the fees payable to doctors for medical services in respect of eligible pensioners and their dependants were increased by 15 cents to $1.85 for surgery consultations and by 20 cents to $2.35 for domiciliary visits. The increased fees became operative from 1 May 1969 and will be reviewed in two years unless consideration of the Report of the Commonwealth Committee of Enquiry into Health Insurance should lead to further changes in the Pensioner Medical Services before that time.

Committees of Inquiry

Medical Services Committees of Inquiry have been established in each State under the provisions of Section 110 of the National Health Act. The membership of each committee consists of the Commonwealth Director of Health in the particular State and four medical practitioners appointed by the Minister for Health from among medical practitioners nominated by the Council of the State Branch of the Australian Medical Association. During the year agreement was reached that appointments of nominated members of the committees should be limited to four years.

The functions of these committees are, among other things, to inquire into matters in respect of the services or conduct of medical practitioners in connection with the provision of medical services under the Pensioner Medical Service.

During 1968-69 thirty-two references to these committees concerning the provision of medical services to pensioners were finalised. In nineteen cases the explanations offered by the doctors concerned were accepted by the committees but in thirteen cases deductions amounting to $10,738 were made from doctors' claims. As a result of these inquiries two reprimands were issued of which one was published.

COMMONWEALTH HEALTH INSURANCE COUNCIL

Three meetings of the Commonwealth Health Insurance Council were held during the year.

The Council's thirteenth meeting was held on 9 September 1968 and was convened specially to inform members of the new Special Account provisions in relation to the extended hospital benefits which were to come into effect on 1 January 1969.

A major result of the Council's fourteenth meeting, held on 27 and 28 November 1968, was the decision to increase benefits in the ceiling tables for Items 1, 5, 8 and 14 (general practitioner and specialist consultations) of the Medical Benefits Schedule. These increases ranged from 10 cents to 50 cents and, as mentioned previously, were made without any increase in contribution rates.

The fifteenth meeting of the Council, held on 29 and 30 May 1969, was called to give members the opportunity to discuss the practical implications of the recommendations of the Commonwealth Committee of Enquiry into Health Insurance.

HEALTH INSURANCE COMMITTEE OF ENQUIRY

In the House of Representatives on 25 March 1969 the Minister for Health, Dr A. J. Forbes, tabled the Report of the Commonwealth Committee of Enquiry into Health Insurance.

The Committee, headed by Mr Justice Nimmo, was appointed in April 1968 to carry out an independent enquiry into Australia's voluntary health insurance scheme.

The terms of reference of the Committee were:

(A) To enquire into:

1. The types of and amounts of benefits provided by benefit tables offered by organisations registered under Part VI of the *National Health Act* 1953-1967, and the numbers of such tables.
2. The extent to which the fund benefits available provide coverage against the cost to contributors of medical and hospital treatment.
3. The rates of contributions payable by contributors to registered organisations, having regard to the financial needs of the organisations and the effect of these contribution rates on the willingness of individuals to insure.
4. The limitations imposed by the rules (including the Special Account rules) of registered organisations in respect of benefit payments.
5. The limitations imposed on individuals by the rules of registered organisations on becoming a contributor to an organisation or transferring to a different benefit table in the same organisation.
6. The policies pursued by registered organisations in the application of their rules relating to the transfer of contributors to Special Accounts.
7. The methods used by registered organisations in paying benefits.
8. The methods used and costs incurred by registered organisations in collecting contributions including the rates of commissions and fees paid to collecting agencies.
9. The expenses incurred in administration and management, including the payment of benefits.
10. The level of reserves maintained by registered organisations for hospital and medical insurance purposes.
11. The policies followed in the investment of such reserves and of other monies arising from contributions to hospital and medical benefit funds.
12. The overall management, administration and financial operations of the registered organisations.
13. The extent to which there is effective contributor representation in the administration and policy making of registered organisations.
14. The effects of activities pursued by registered organisations in competing for members.
15. The extent and form of competition that is desirable between registered organisations.
16. Whether the interests of contributors would be better served if there was a greater or a lesser number of registered organisations.

(B) To make such recommendations to the Minister in relation to the above matters as the Committee deems necessary.

(C) To make such other recommendations to the Minister as the Committee deems necessary in relation to the provision of adequate financial protection against the cost of illness in the context of both a voluntary health insurance scheme and the obligations at present accepted by the State Governments.

The Committee's Report contains forty-two specific recommendations affecting not only the Commonwealth Government but also State Governments, the medical profession and health insurance funds. Hearings of the Committee were held in each State capital and evidence was submitted by various organisations, including medical and hospital funds, the medical profession, Government authorities, hospital and related organisations and individual persons.

At the time of writing the Government was examining the practical implications of the Committee's report and had initiated discussions with various parties concerned to obtain their views and reactions to the report.

SENATE SELECT COMMITTEE

A select Committee of the Senate was appointed in April 1968 to inquire into medical and hospital costs in Australia.

A comprehensive submission was made to the Committee by the Department setting out the objectives and principles of the National Health Scheme. Senior officers of the Department also gave evidence before the Committee.

Pharmaceutical Benefits

Widespread outbreaks of upper respiratory tract illnesses were reported in Australia in the first half of the 1968-69 financial year and apparently contributed to a sharp increase in the cost of the Pharmaceutical Benefits Scheme for the year. These outbreaks, which were described as being considerably more severe in nature and extent than those normally attributed to a seasonal pattern, contrasted with the conditions which prevailed in 1967-68, a year notable for the low incidence of winter ailments.

Significant increases, in both benefit prescribing and cost, also rose from the addition of new items to the list of benefits, and the easing of prescribing restrictions on certain items. There was also a continued trend towards the prescribing of a greater proportion of relatively high cost drugs.

The total cost of pharmaceutical benefits in 1968-69, including patients' contributions on prescription benefits available to the general public, amounted to $136.5m. This represents an increase of $14.9m, or 12.0 per cent and is significantly higher than the $4.01m, or 3.4 per cent, increase in 1967-68 over 1966-67.

Increased costs were distributed as follows:

	$000's
Commonwealth expenditure on benefits available to the general public	7,225
Benefits provided in public hospitals and miscellaneous services	1,520
Pensioner Pharmaceutical Services	4,494
Total increased Commonwealth expenditure	13,239
Increased patient contribution on prescriptions available to the general public	1,625
Total increased cost	14,864

Prescription benefits

The average cost per prescription rose from $1.94 in 1967-68 to $2.00 in 1968-69. Overall benefit prescription volume increased by 5.0m, or 9.0 per cent, to 60.41m. As a result of this increase the number of prescriptions per head of population rose from the 4.65 recorded in 1967-68 to 4.96.

The combined effect of increased benefit prescription volume and a higher average cost per prescription was an increase of $0.91 in the overall cost per head of population, which rose from $9.01 in 1967-68 to $9.92.

The cost increases in pharmaceutical benefits made available direct to the public were due to:

	$000's
Growth in population	2,544
More benefit prescriptions written per head of population	7,138
Increase in the average cost per prescription	3,662
*Total increased cost	13,344

* Excludes public hospitals and miscellaneous services.

The table below illustrates the relative usage of some high cost drugs in the past two years.

	1967–68		*1968–69*			
	Prescriptions	*Cost*	*Prescriptions*	*Increase*	*Cost*	*Increase*
	No.	$	*No.*	%	$	%
Erythromycin	1,344,950	4,610,752	1,629,875	21.2	5,607,755	21.6
Frusemide	596,991	2,899,554	770,787	29.1	3,594,727	24.0
Methyldopa	882,790	5,302,638	989,777	12.1	5,948,903	12.2
Anti-depressant group	410,939	1,524,342	559,237	36.1	2,085,124	36.8
Indomethacin	1,189,807	3,550,334	1,373,062	15.4	4,075,594	14.8
Tranquilliser group	899,006	2,673,257	1,018,614	13.3	3,126,925	17.0
Chlorthalidone	102,580	469,513	152,446	48.6	661,642	40.9

Note: Cost includes the patient contribution on benefit prescriptions available to the general public.

Table 42 on page 127 shows the prescribing volumes and expenditures on benefit prescriptions provided in the more frequently prescribed therapeutic groups in 1967-68 and 1968-69.

The increase in cost of drugs used in hospitals during 1968-69 of $1.5m was due to an overall increase in hospital prescribing and the addition of new drugs to the list of benefits available to hospital patients.

Further statistical information on pharmaceutical benefits is shown in tables 31-41 on pages 121 to 126.

Price negotiations

The extension of the list of benefits to include new and often expensive drugs must tend to increase the cost of the Pharmaceutical Benefits Scheme. However, the prices of preparations listed as pharmaceutical benefits are continually under review by the Department and considerable attention is devoted to price negotiations with manufacturers.

Negotiations with manufacturers during 1968-69 resulted in price reductions which would save the Commonwealth approximately $1.2m in a full year, if the rate of prescribing of these preparations were to remain constant.

Changes in listing

Following recommendations by the Pharmaceutical Benefits Advisory Committee, forty-four new items were added to the list of pharmaceutical benefits during 1968-69. A further seventy-one new strengths and forms of existing benefits were also included in the list.

Of particular note were the changes in pharmaceutical benefits for the treatment of asthma. From 1 April 1969 doctors have been able to prescribe corticosteroids, with the authority of the Commonwealth Director of Health in the State concerned, as pharmaceutical benefits, for use in conjunction with other therapy in the treatment of chronic and recurrent asthma for patients in two categories. These are patients whose chronic asthma is sufficiently severe to interfere seriously with their normal activities and severe asthmatics whose acute attacks have been relieved by corticosteroids but who have relapsed when corticosteroids were withdrawn. Several bronchodilator combination preparations for the treatment of asthma were also listed as benefits from 1 April 1969, in addition to the metered aerosol spray bronchodilators already listed as benefits from 1 August 1968.

In association with the above changes a booklet entitled *The Management of Asthma* was distributed to doctors throughout Australia. This booklet is an authoritative statement on modern asthma therapy and was prepared by the Royal Australasian College of Physicians and the Asthma Foundations of New South Wales and Queensland. The cost of printing and distribution was met by the Commonwealth.

Thirty-four items were deleted from the list of ready prepared pharmaceutical benefits and twenty items from the list of drugs available for use as ingredients of preparations compounded by chemists from doctors' directions. The greater proportion of the deleted items had been superseded by more effective preparations.

Joint Committee on Pricing Arrangements

During the year the Joint Committee on Pharmaceutical Benefits considered several matters relating to pricing arrangements for pharmaceutical benefits.

The Joint Committee's chief concern during 1968-69 was consideration of a request by the Pharmacy Guild of Australia (formerly the Federated Pharmaceutical Service Guild of Australia) for a variation in the rates and method of remunerating chemists for dispensing pharmaceutical benefits. This request, which was based on a report by independent consultants of a survey of pharmacy earnings, costs and profits, was referred to the Joint Committee for its consideration and advice.

The Joint Committee submitted its report on this matter during March 1969 and in June 1969 the Government decided, on the basis of the survey findings, that payments to chemists for dispensing pharmaceutical benefits prescriptions should remain unaltered.

Visits to doctors

Since the scope of the Pharmaceutical Benefits Scheme was broadened in 1960 to provide not only essential or life-saving drugs but also a wide range of other drugs and medicinal preparations, the Department has had two aims. These are to keep the cost of the scheme within reasonable bounds and to ensure that the range of benefits is kept abreast of modern advances in pharmacology and medicine.

To keep the range of benefits up to date, the list is regularly reviewed by the Pharmaceutical Benefits Advisory Committee. This committee, which is an independent, statutory body of experts, recommends to the Minister those drugs and medicinal preparations which it considers should become benefits and also advises on any restrictions, if any, which should apply to the availability of benefits.

Visits to doctors by departmental pharmacists are regarded as an important means of assisting doctors to understand the detailed workings of the scheme and in so doing to assist in the prevention of irregular prescribing. Programmes of visits to doctors have been conducted for many years with beneficial results.

Some drugs are, because of the recommendations of the Pharmaceutical Benefits Advisory Committee, available as benefits only for the treatment of specified diseases and conditions. There is therefore an obvious responsibility for the Department to ensure, as far as possible, that these requirements are observed when these drugs are prescribed at Commonwealth expense.

Chloramphenicol is one of the drugs subject to restrictions and during the year, in accordance with routine practice in such cases, visits were made to doctors whose prescribing of this potent drug as a pharmaceutical benefit was unusually high in comparison with the prescribing patterns of the medical profession as a whole. The purpose of these visits was to ensure that the doctors concerned understood the restrictions placed on the use of these drugs.

Part VII of the National Health Act continues the powers under the preceding Pharmaceutical Benefits Act for the surveillance and protection of the expenditure of Commonwealth funds. From time to time circumstances require that officers authorised under the Act make investigations and inquiries for this purpose and such matters may be referred both to the relevant committees of inquiry in the States and to the courts.

Committees of Inquiry

The Pharmaceutical Services Committees of Inquiry considered, during 1968-69, twenty-one references concerning the services or conduct of pharmacists approved to supply pharmaceutical benefits. These references mainly related to the supply of pharmaceutical benefits which failed to meet required standards of dispensing.

As a result of the committees' recommendations on these references, thirteen chemists were warned to exercise more care in dispensing, four were reprimanded with the reprimand appearing in the *Commonwealth Gazette* and one was reprimanded without gazettal. In two cases the committee recommended that no further action be taken and a recommendation in one instance was deferred.

The Medical Services Committees of Inquiry considered a number of references which involved the prescribing of pharmaceutical benefits but action regarding these cases had not been finalised at the time of writing.

Court proceedings

A doctor in Queensland pleaded guilty to twenty breaches of the provisions of the *National Health Act* 1953-1968 in relation to the Pharmaceutical Benefits Scheme and was fined a total of $800.

Planning and Legislation

The Planning and Legislation Branch had a particularly busy year in 1968-69 due to the volume of work associated with the investigation of, and reporting on, a wide range of proposals within the health and welfare field.

The Branch is responsible for the administration of the policy, legislation, economic research, civil defence and public information functions of the Department and for ministerial and parliamentary liaison.

Policy and Legislation

The Policy and Legislation Section investigated policy proposals on many subjects concerned with Government and departmental policies during the year and prepared reports as necessary. In addition, investigations leading to the preparation of instructions for draft legislation at both the Commonwealth and Territory levels continued to be a major activity for the Section together with analysis of draft legislation and the processing of finalised drafts.

In the field of Commonwealth legislation, major amendments of the National Health Act and the Quarantine Act were completed during the year. The National Health Act was amended to provide additional financial assistance by way of hospital benefits for Special Account patients, for nursing home patients receiving intensive nursing care and for children under sixteen in handicapped persons' homes. The Quarantine Act 1969 revised the penalties for breaches of the Act and also included a number of machinery amendments designed to allow the smoother functioning of quarantine administration.

Two new Acts were also introduced to give effect to the Commonwealth Government's proposals to provide financial assistance to the State Governments for additional nursing home beds and for para-medical services provided to people in their own homes.

Several quarantine proclamations, mainly relating to new aspects involving some quarantine risks, were made during the year as well as a number of changes to Commonwealth regulations.

No major amendments were made to Territories legislation during the year. However, eleven minor amendments were promulgated for Australian Capital Territory and Northern Territory ordinances and regulations. Work was also continued on reviews of hospital and drug legislation for the Territories.

Research

The Research Section continued its investigations into the costs of institutional health care and estimates were completed of the income and expenditure of public and private nursing homes for the period 1964-65 to 1966-67, with separate information for State, private enterprise and voluntary non-profit homes. A survey of incomes and expenditure of home nursing organisations, began in 1966-67, was extended to cover 1967-68. A survey of financial details and other particulars of public hospitals is being extended to a coverage of five years with the addition of information for 1967-68, and charges in private hospitals have been obtained on a sample basis for the latter year.

Some research was undertaken during the year in the field of mental health in order to establish the current position regarding activities by the States and other agencies in this area.

A new undertaking was the compilation of estimates of total health expenditure in Australia. An aggregation was made for 1966-67 showing details of sources of public and private finance and types of expenditure. It is hoped to produce a series of similar estimates, thus providing the basis for an index of health costs.

Part of the activities of the Research Section include the provision of a secretariat for the National Medical War Planning Committee. This Committee and its supporting committees continued their deliberations during the year. The deputy chairmen of the State medical planning committees, who are officers of the State health departments, have been appointed members of the National Committee. This action, together with increased State representation on the State medical planning committees, is expected to provide for better co-ordination of Commonwealth and State health authorities in emergency medical planning.

A draft model plan for emergency medical services has been prepared and representatives of the National Committee have discussed the plan with the State medical planning committees with a view to having a uniform plan for application throughout Australia. A definition of the lines of control which would operate in a national emergency has also been sought.

All doctors in Australia have been sent a questionnaire from which a register will be compiled and maintained by computer. The register, which is expected to be completed early in 1970, will provide the Committee with valuable information concerning the disposition of medical manpower resources and will enable planning to proceed for the utilisation of those resources in a national emergency.

Public Relations

The introduction of new health benefits during the year and the level of debate on health affairs meant an increased workload for the Information and Public Relations Section. Three new pamphlets dealing specifically with hospital benefits, nursing home benefits and benefits for handicapped children were produced and a booklet on the National Health Scheme was revised and reprinted. Some two million copies of these pamphlets and booklets were distributed to the public through doctors, chemists, hospitals, nursing and handicapped children's homes. A newspaper and radio advertising campaign was carried out during the early months of 1969 to inform the public of entitlements under the new benefit arrangements and of the need to review their health insurance.

Editorial work towards the production of periodical journals, special reports and monographs continued and there was an increased volume of Press and public inquiries for information. A cartoon film stressing to migrants the consequences of the entry into Australia of exotic animal diseases was completed and distributed for use on ships bringing migrants to Australia. Also in the quarantine publicity field, a draft plan was drawn up covering public relations action in the event of a possible outbreak of a serious exotic animal disease.

Establishments and Finance

The Central Office of the Department moved into its new headquarters in the Canberra suburb of Phillip early in May 1969. The nine-storey building and its annexe are known as the Alexander Building. The names for all Commonwealth buildings in the area have been taken from ships of the first three settlement fleets that came to Australia.

The occupation of the new building and the opportunity to group together all sections of Central Office—except certain laboratories—has brought advantages from functional planning of office accommodation.

Establishments Section

The rapid growth of the Department continued during the year and the establishment increased by 460 positions to a total of approximately 4,000 positions. In the Northern Territory Medical Service there were substantial increases in the staff of the Darwin and Alice Springs hospitals.

A number of major establishment reviews were finalised during the year. The most significant of these included the re-organisation of the medical and national health divisions in all States to implement the introduction of 'intensive' nursing care benefits to approved patients in nursing homes and the re-organisation of the Health Laboratories in all States. The Public Service Board has recently approved the establishment of a Narcotics Section in the Therapeutic Substances Branch and the creation of positions of senior project officer and project officer to investigate and report on the most effective means of collecting, collating and disseminating information on interstate movements of drugs of dependence.

Finance Section

The Finance Section of the Department is responsible for the overall supervision and co-ordination of the estimates, expenditure and revenue of the Department. The accounting arrangements cover a widely diversified field. Apart from the usual expenditure on salaries and administrative expenses, expenditure is incurred on various health services including Australian Capital Territory and Northern Territory Health services, medical research, grants-in-aid to outside bodies, payments to the States and payment from the National Welfare Fund to such groups as registered hospital and medical benefit organisations, doctors, chemists, State Governments, hospitals and bush nursing organisations. Revenue is derived mainly from health services provided in the Australian Capital Territory and the Northern Territory and quarantine services provided throughout the Commonwealth.

There are four groups within the Section, namely Accounts, Funds and Estimates, Procedures Investigation, Revenue and Review and Commonwealth Serum Laboratories Liaison. Two groups, Procedures Investigation and Revenue Review, were created late in 1967-68 and all positions involved were filled in 1968-69. During the year the Finance Section completed reviews of charges for in-patients at the Canberra Community Hospital and Northern Territory hospitals and also charges made by the Australian Capital Territory Ambulance Service.

Organisation and Methods

The Organisation and Methods Section continued its programme of cyclical reviews to ensure that existing organisation patterns are satisfactory and current methods efficient. Similar reviews were also conducted on specific matters which arose during the year.

Reviews were carried out in all sections of the A.C.T. Health Services Branch, the Administration and Finance and Medical and Hospital Sections of the Western Australian State Office, the National Health and Medical Research Council Division, the Pricings and Publications Section of the Pharmaceutical Services Branch, the Central Office typing pool, the Nursing Section of the National Health Division and the New South Wales Branch Office of the Commonwealth Acoustic Laboratories. The purchasing and stocktaking procedures of the Central Office library and the stores procedures at the National Biological Standards Laboratory were also investigated. The telex service was extended to include the Commonwealth Acoustic Laboratories and automatic tape transmission facilities were installed at Central Office and Darwin.

Automatic Data Processing

In December 1968 the Interdepartmental Committee on Automatic Data Processing agreed to support plans for the acquisition of central computing facilities to be operated and administered by the Department of Health. The large scale facilities proposed will be located in the Department's new headquarters building and will comprise two independent computers and extensive direct access storage.

The Committee decision represents a significant landmark in departmental A.D.P. development and culminates many months of intensive work in the A.D.P. Section. The case placed before the Committee for its consideration was based on a review of the Department's present computer systems and processing methods and of long term processing requirements. The new equipment and the procedures proposed will enable the Department to improve its service to chemists in the payment of Pharmaceutical Benefit claims.

The new system calls for a widespread change in present processing techniques and therefore requires a major programming effort in the Department. Its implementation will demand a managerial and co-ordinating effort of some magnitude. Planning in both areas is now well under way. Detailed specifications for the computing equipment required have been prepared and submitted to the Interdepartmental Committee on A.D.P. for its endorsement. Specifications have also been prepared for the data entry keyboards which will replace the present paper tape data preparation equipment.

Outside the area of pharmaceutical benefits, the facilities proposed will provide sufficient capacity for extension of A.D.P. techniques and methods to a wide variety of important computing applications within the Department.

A further area of future activity will concern MEDLARS, a magnetic tape based library information system developed by the National Library of Medicine in the United States. The National Library of Australia has entered into an agreement with the National Library of Medicine for the development and maintenance of the service in Australia. The Department of Health will provide the machine facilities and programming expertise required to develop, implement and maintain the computing systems which are an integral part of the service.

During the year the present systems were consolidated and improved. As a result of additional time allocations at the Computer Service Centre, processing delays in all areas were kept at acceptable levels.

Divisional Office Activities

Most of the Commonwealth Department of Health's day to day administrative functions are carried out by its divisional offices located in the State capital cities. In 1968-69 the normal work-load of these offices was increased by two factors—the natural increase in utilisation of health benefits and services and the introduction of new Commonwealth health benefits.

Introduction of new benefits

Much groundwork was carried out in the divisional offices before the introduction of the new benefits. In particular, the new supplementary nursing benefit, introduced from 1 January 1969, was the subject of intensive pre-introductory surveys to determine the number of patients likely to be eligible and to assess the difficulties involved.

Due to the extensive publicity given the supplementary nursing home benefit, a large volume of requests for information was received and dealt with in all divisional offices before the new benefit became available. As the year progressed, the programme of visits to nursing homes undertaken by Departmental officers proved effective in informing doctors and matrons of the requirements of the scheme. Nursing home proprietors were personally contacted and the provisions of the legislation explained to them.

When the new benefit came into effect, the divisional offices of the Department worked at high pressure to deal with the large volume of applications for the supplementary benefit.

Liaison activities

One of the areas in which the increase in utilisation of benefits was felt most keenly was in the processing of chemists' pharmaceutical benefit claims and in liaison work related to the Pharmaceutical Benefits Scheme.

In New South Wales, for example, the Pharmaceutical Section of the Department each month receives from chemists some 2,300 claims relating to some two million prescriptions. The prescriptions and the codes entered by the chemists are checked for validity and accuracy prior to being processed by computor in Canberra. Payments are then made to the chemists.

The pharmaceutical sections of the divisional offices also maintain liaison and inspection services. In New South Wales several pharmacists from the Department work on a continuous visiting programme. They visit some 2,000 pharmacists and 1,500 doctors each year to discuss prescribing practices and the operation of the Pharmaceutical Benefits Scheme generally. The inspection pharmacists are also active in obtaining samples of drugs for testing under the provisions of the Therapeutic Substances Act. Each year in New South Wales some 1,000 samples are taken for analysis to check on such aspects as their purity and potency.

In States such as Queensland, Western Australia and South Australia, great distances are covered by the officers engaged in this liaison and inspection work, particularly in travelling to remote towns and to areas where industrial development has caused communities to develop quickly, creating special needs for information and guidance.

In Queensland, as there is no Commonwealth Customs Analyst, Health Department pharmacists in Brisbane are also required to carry out inspections of therapeutic substances at the parcels post section of the general post office. This entails thousands of inspections yearly.

In Western Australia, the number of prescriptions written for pharmaceutical benefits increased by 30 per cent over the previous financial year, mainly due to additions to the list of drugs available and to the increasing population in that State.

In South Australia, pharmacists from the Department travelled more than 20,000 miles on inspections. All pharmacists and doctors in both Victoria and Tasmania were visited at least once during the year.

Quarantine work

Quarantine work is another important function carried out by the Department from its divisional offices. Revised procedures for quarantine clearances of ships were introduced smoothly during the year. New procedures relating to the medical examination of seamen, wharf clearances, radio pratique and hours of clearance meant a general increase in the work of the Department's quarantine officers in all States. In most States there was an increase in the number of vaccinations performed.

The introduction of containerised ships' cargoes was one of the most important developments affecting quarantine activities during the year. In the three States so far involved, Western Australia, New South Wales and Victoria, new streamlined quarantine clearance procedures were implemented smoothly. This was a result of the fullest co-operation on the part of both the shipping companies and the inspecting officers.

Australia's continuing industrial and mineral expansion continued to pose problems for the Quarantine Service. At new ports in areas remote from established centres of population comparatively large quantities of cargo are being discharged and special arrangements have to be made, particularly in Western Australia and Queensland, to have quarantine officers meet all incoming ships and carry out inspections with a minimum of delay.

In Tasmania unscheduled visits by foreign fishing vessels pose a special problem. More than 160 Japanese fishing vessels visited Hobart during the year, many without any advance notice by agents or shipping companies. All of these craft had to receive appropriate clearances by quarantine staff.

In Sydney the new Quarantine launch *Pasteur* was delivered in August 1968 and has helped considerably in the performance of quarantine work. The launch is used both by medical officers to board ships for quarantine inspections and by officers engaged in the fumigation of ships.

Medical examinations

In all of the divisional offices of the Department clinical examinations are carried out by Commonwealth medical officers and the volume of this work is increasing. These examinations include medical assessments of prospective Commonwealth public servants and applicants for positions with statutory bodies, examinations of seamen under the Navigation Act and applicants for invalid pensions. An indication of the scale of this work can be seen in the position in New South Wales, where there are some 64,000 Commonwealth permanent, exempt and temporary employees eligible for Commonwealth medical examinations.

Most of the functions carried out by the divisional offices of the Department are of a similar nature. In each State, however, there are differences due to local conditions. There are, as well, some services which are peculiar to one State.

One such service is the Munitions Medical Service provided by the Victorian office of the Department. In this service five medical officers and eighteen nursing sisters provide medical services for over 8,000 employees in eight Department of Supply establishments.

A Medical Officer of the Munitions Medical Service confers with a workman at the Commonwealth Ammunition Factory, Footscray, Victoria

Northern Territory Health

The promotion of health, the eradication and control of disease, and the provision of health and medical services, require the active participation and co-operation of a large number of people with widely diverse interests, training and experience. When these activities are carried out in an area experiencing rapid population growth, industrialisation and social change and cross cultural conflict, the problems to be faced by the health services are multiplied in number and complexity. When, moreover, a high rate of staff turnover is a continuing part of the local scene, and recruitment of persons with specialised skills is difficult, the demands made on the stable nucleus of staff are very great indeed. The Northern Territory Medical Service is fortunate in that it possesses people capable of meeting the challenges posed by this situation.

From its inception, the Northern Territory Medical Service has followed a plan of concentrating, at strategically located centres, the complex and sophisticated facilities which comprise modern hospitals, and the development of flexible mobile services which can cover every part of the Territory—either taking to remote areas specialised teams or ensuring that, where necessary, patients are speedily brought to the major hospitals. This approach has never been as valuable as it is today, when changes in growth and development patterns are occurring with great rapidity and when the demand for types of services varies almost from day to day.

Notwithstanding the apparent emphasis on technological equipment and modern hospital development, the greatest problems are still those of personal and community health in the Northern Territory Aboriginal communities. Social change and educational advancement cannot be accelerated beyond a certain rate and during the transitional period, while the Aboriginal is progressing from a stone age culture to that of the twentieth century technological civilisation, special health and medical problems must be handled.

As mining and other developments proceed, large numbers of people are arriving in both rural and urban areas in the Northern Territory. Housing problems, which have always been worrying, have become more acute in the past year and the provision of temporary accommodation, with its attendant public health problems, is causing concern. Because of the changing pattern of employment on pastoral properties, increasing numbers of Aboriginals are camping in and around townships in conditions which are devoid of basic hygiene facilities. An expansion of home and district nursing services has provided for some degree of health supervision but this cannot solve the basic problems of sub-standard living arrangements.

Industrialisation, which is as yet only in its early stages, has meant a rising demand for occupational health services in the Territory. The growing threat of pollution of the environment is also a matter which necessitates constant vigilance.

Aboriginal health

The process of social change, which has been proceeding for some years, has been markedly accelerated over the past twelve months. All sudden social change is apt to produce health problems and the Northern Territory has been no exception.

Increasing emphasis is being given to child health and, particularly in Central Australia, efforts in this field have had encouraging results. There has been a reduction of infant mortality and, as a natural result, an increasing workload is being borne by the hospitals and by medical and nursing staff engaged in both hospital and field work. The percentage of beds in the Alice Springs Hospital occupied by children is approaching the 50 per cent mark and it is likely this situation will continue until social, educational and economic advances on settlements, missions and pastoral properties bring about satisfactory levels of personal and community hygiene.

As many of the problems of Aboriginal health have their origin in the field and can best be tackled there, efforts are being made to expand public health nursing activities and infant health facilities.

Communicable diseases

No indigenous case of malaria was recorded in the Northern Territory in 1968-69. Nevertheless the influx of persons from many parts of the world into potentially malarious areas, notably East Arnhem Land, and the increased air traffic between the Indonesian region and Darwin, are developments which cause some apprehension as they increase the risk of re-establishment of the disease. The precautions being enforced, although they may be regarded by some people as being over-stringent, are considered essential to keep the Northern Territory free of malaria.

Tuberculosis activities, in spite of staff changes, have progressed satisfactorily. B.C.G. immunisation campaigns are developing well and have now been extended to include school leavers in urban centres. The recent appointment to the position of Assistant Director (Tuberculosis) of an officer with considerable experience in tuberculosis work in Asia is proving a great advantage.

Children undergo B.C.G. vaccination against tuberculosis in Darwin

No further case of typhoid occurred during the year. The investigations into the outbreak of 1967-68 have been given additional value by sending portion of the sample material obtained for genetic studies as part of the International Biological Programme.

As had been the case in most parts of the world, venereal disease has been of major concern. A full-time investigation officer employed in case and contact tracing and follow-up work has demonstrated the necessity for such activities. For example the routine screening of female prisoners in gaols has been introduced with worthwhile results. The co-operation of the medical profession has been excellent but the indifference and apathy of certain sections of the public continues to hamper the campaign against this disease. Nevertheless, recent trends show some fall in the number of cases and it is hoped that this trend will continue.

In an endeavour to provide more accurate information of trends in leprosy and of the progress of anti-leprosy measures, a special study into epidemiology and control has been planned. If the necessary staff is obtained this should become a full-time study by the Northern Territory Medical Service's specialist in leprosy during the next financial year.

Urban Public Health

Additional health inspection staff has been provided and a health inspector is now permanently stationed at Katherine. With further development of inland centres a resident health inspector at Tennant Creek will shortly be necessary. In the meantime, an additional inspector has been posted to Alice Springs.

The problems of rapid growth, accommodation shortage, and an ever changing population, contribute to the difficulties of maintaining acceptable standards of hygiene and sanitation. Temporary accommodation such as caravans and camps are a real problem and strenuous efforts are necessary to prevent health hazards arising from them. Illegal dumping of garbage is increasing, particularly in and around Darwin, and a clean-up campaign is being organised in conjunction with the Northern Territory Administration and the Corporation of the City of Darwin.

There was an improvement during the year in the standard of food handling and a marked improvement in the standard of food premises, especially butcher shops in Darwin. Water supplies will soon be insufficient for the growing population and a programme for substantial expansion in Darwin has been formulated. Fluoridation of the water supplies for both Darwin and Alice Springs has been approved but no date for commencement has yet been specified.

Disposal of sewage for the City of Darwin continues to be a problem with growing pollution of the harbour and a considerable odour nuisance. A master plan for the entire area was approved during the year and it is hoped that this will improve the situation markedly. The lagoon system at Alice Springs has been improved and systems to filter and chlorinate the effluent are being installed. The situation at Katherine, where there are problems of flooding and unsuitable soil for septic tank installation, remain and it is hoped that a full sewerage system can be provided for this centre in the near future.

Rural Public Health

With the rapid development of mining ventures on the Gove Peninsula and at Groote Eylandt, constant health inspection has been necessary to avoid the creation of health hazards and to curb unsatisfactory sanitary practices. The co-operation of the companies involved has, however, been excellent and the development plans provide for the installation of sewerage and other sanitary facilities of a high standard.

Hygiene on settlements, missions and pastoral properties generally remains a considerable problem. Increasing pollution of the environment is occurring and hookworm infestation in the humid tropical areas and bowel disorders—especially shigella and salmonella infections—throughout the Territory, are major problems.

The hookworm laboratory in Darwin has been shifted to the East Arm Settlement and combined with the training section for rural hygiene officers. The loss of Mr Phillip Roberts to the Office of Aboriginal Affairs has been keenly felt. However, two Aboriginal technical assistants are working at the laboratory and are responding well to training.

Schools Medical Service

The Schools Medical Service has continued to carry a heavy work load in addition to the routine examination of students. Assistance is provided for visiting ear, nose and throat teams and this requires preparation before the visit, assistance while the teams are in the Territory and follow-up work after the visits. The hearing screening programme and the immunisation clinics are also supervised by Schools Medical Service staff.

During the year a special class for severely deaf children was established in an Alice Springs School. Chronic ear infection, with consequent hearing problems, still constitutes a major problem.

Co-operation from the Department of Education and Science has been excellent and the interest shown in health work has been most encouraging.

Infant health

The work of the Infant Health Section also reflects the rapid population growth in the Northern Territory. Many more children were enrolled in centres during the year and clinic attendances increased markedly. Home visits to mothers with small children who could not attend clinics were also more numerous. Infant health sisters assisted during the year with the Sabin oral poliomyelitis vaccination campaign.

The services of the specialist paediatrician in Darwin, who conducts regular clinics at the infant health centres every month, proved extremely valuable and many problem cases were handled in this way.

Home Nursing Service

The headquarters of the Home Nursing Service in Darwin was transferred during the year to a new building in the suburb of Parap, thus providing more room and a more central location. At all the home nursing centres there was an increase in activities.

From Darwin the sisters are now making visits to areas some distance outside the city and at Katherine and Alice Springs a great deal of work is being done amongst groups of Aboriginals camped on the outskirts of the towns. The increasing numbers of these people present a social problem of considerable magnitude and the work must be carried out under conditions far from ideal. Access to the camps is often difficult and vehicles must be driven over rough tracks, creek beds and the like, if the sisters are to reach these people who are, of course, more in need of service than other sections of the community.

Public Health Nursing

The work of the Public Health Nursing Section is concerned mainly with improving the health of Aboriginals in the Northern Territory. Each sister in the section possesses general, mid-wifery and infant health certificates and also receives further in-service training—for example in audio metric screening and the recognition of leprosy. Health education is increasingly an important part of their activities and the section has produced several series of flash cards, drawn by local artists, to aid in conveying ideals of hygiene and infant care to mothers living in wurleys in the remotest parts of the Territory.

With the reduction of infant mortality amongst Aboriginal children a very heavy population pressure is building up in the nought to five years age group. Since the majority of Aboriginal families in the Territory live in circumstances lacking the facilities necessary for good child care, the struggle to maintain children in even a reasonable state of health is never ending.

Aerial visits to conduct infant health clinics at selected pastoral properties were introduced during the year to supplement the work done on regular road circuits.

Apart from child health, the sisters of the Public Health Nursing Section maintain a comprehensive immunisation programme which, in addition to the normal coverage of diphtheria, tetanus, and whooping cough, includes Sabin oral poliomyelitis vaccine, B.C.G. for protection against both tuberculosis and leprosy, and vaccinations against typhoid in certain areas and smallpox in the coastal region. The first use in Australia of live measles vaccine in a mass campaign was in the Northern Territory and it is hoped that this campaign can be resumed as soon as a suitable vaccine again becomes available.

Case and contact tracing, follow-up and review, as part of the leprosy control service, is a major function of the public health nurses. The manual *Leprosy in Northern Territory Aborigines,* especially prepared for the guidance of nursing sisters by the Superintendent of the East Arm Leprosy Hospital, Dr J. C. Hargrave, and which has won international acclaim, has been of great assistance in this work. Tuberculosis control is similarly a part of the work of the 'bush sisters' and they assist also in malaria surveillance and indeed in almost all aspects of communicable disease prevention and control.

Health Laboratories

Increasing pressure on the Northern Territory Hospitals is reflected in the amount of work required of the Health Laboratories at Darwin and Alice Springs. The continued absence of a permanently appointed pathologist is a serious handicap, however. In Darwin, the work in the biochemistry and haemotology departments is steadily increasing. In parasitology there is a steady stream of imported cases of malaria and, in addition to local diagnosis, duplicate blood films are sent to the School of Public Health and Tropical Medicine for the information of the central malaria case register. In 1968-69 cases of salmonella infection declined in the Top End of the Territory but shigella dysentery isolations remained at the same level as in previous years.

At the Alice Springs laboratory the dramatic increase in the number of paediatric cases handled by the hospital has contributed to a large increase in the volume of work performed. The use of micro methods for biochemical investigations has become standard and the laboratory is very well equipped with modern apparatus.

Amongst the rarer diseases handled in the Northern Territory during the year were a case of torulosis in Alice Springs and a case of melioidosis in Darwin.

Dental Services

After a period of extreme staff shortages in preceding years, staffing was maintained at a much improved level in 1968-69. With better staffing levels, mobile services were carried out on a regular basis and a big improvement in the number of visits to Tennant Creek and Katherine was achieved.

At general clinics the demand, however, continued to exceed the capacity of the buildings and extensive waiting lists still exist. The completion of the new city clinic in Darwin is eagerly awaited. The Nightcliff clinic is under increasing pressure which will not be eased until clinics can be provided in the developing new suburbs at Rapid Creek and in areas beyond.

At Alice Springs the staff was increased from two to three during the second half of the financial year with some consequent improvement in the service. However, the work load still remains very heavy and the waiting time is longer than desirable. Plans are under way to provide a fourth surgery at Alice Springs.

Investigation of fluoride levels of the water supply shows great variations in concentration at Alice Springs and the early commencement of fluoridation in both Darwin and Alice Springs is considered necessary to the dental health of these communities.

Research

Participation by the Northern Territory Medical Service in the human adaptability studies planned as part of the International Biological Programme increased to a gratifying level during 1968-69. Many hundreds of blood samples collected as part of the investigation into the outbreak of typhoid in eastern Arnhem Land in 1967-68 became available also for genetic and virus studies. A further large number of samples was collected as part of a study into the nature of treponemal disease, and these also became available for the International Biological Programme research.

The field work involved in the treponemal disease investigation has been completed and the results are being analysed. A florid case of yaws was discovered in a remote area and material from the lesions was flown in liquid nitrogen to Paris for further study. Unfortunately, animal inoculations did not succeed but the presence of organisms was confirmed by microscopy.

Research into the growth patterns of Aboriginal infants and children in Central Australia has continued and some findings are ready for publication. A nutritional study is planned for the next financial year and various other International Biological Programme projects, including studies of cardio vascular disease, environmental physiology, and further work in genetic markers are also programmed.

Quarantine

The volume of overseas air and shipping traffic handled by Northern Territory ports has continued to increase. More numerous flights with troops on rest and recreation leave from Vietnam and the introduction of pure cargo aircraft were significant developments during the year.

The establishment of the joint defence space research facilities at Pine Gap has meant that United States aircraft are now landing at Alice Springs and it seems inevitable that in future there will be a demand for first port clearance at the developing areas of Gove Peninsula and Groote Eylandt.

Shipping has also increased, not only because of the general growth of the Territory, but more particularly because of developments in mining and marine industries such as prawn fisheries. Traffic by sea to Groote Eylandt has continued and quarantine clearances have also commenced at Gove as the bauxite project enters its major construction phase.

The importation of vehicles continued and steam cleaning was necessary for the majority of these. Timber shipments were maintained, and there was a general increase in the variety and amount of materials handled. Several consignments of timber were found to be infected with insect borers and cryptodermes were discovered on one occasion. During the year only a few vessels showed signs of rat infestation and contamination by seed was found on only two occasions.

The collection and diposal of ships' garbage by the Port Authority at Darwin is on a most satisfactory basis and the increased quarantine staff available for duty enabled a satisfactory level of inspection to be maintained in spite of the increased numbers of vessels under surveillance.

Aerial Medical Service

The present fleet of five Dove aircraft had a busy time in the past year and maximum utilisation was obtained from the machines. The hours and miles flown increased over the figures for previous years and, as well, there was some change in the pattern of operations. With the increasing development of routine campaigns such as the Sabin oral poliomyelitis programme and regular visits to selected pastoral properties, it was possible to handle many evacuations by aircraft already present in the area on routine flights.

It is expected that, in spite of population increases, the greater number of routine medical clinics and special services such as infant health activities will operate to slow down the growth of demands for emergency evacuations.

Inter-hospital transfers are increasing between Tennant Creek and Alice Springs and reflect the very rapid growth in Central Australia. On the other hand, the regular routine surgical visits to Katherine Hospital and the expansion of facilities at that centre have resulted in a lessening of the demands for transfers to the hospital at Darwin.

Hospital services

Pressure on hospital services has increased, particularly in Central Australia, and 1968-69 was a difficult year as far as the availability of resident medical staff was concerned. The hospital development programme is proceeding, with the erection of demountable accommodation at Katherine to enable a further stage to proceed at that centre, the modernisation of wards in Darwin Hospital to provide a new maternity unit, and preparations for the interim stages at Alice Springs, where major developments are in the final planning stages.

Darwin Hospital, the major hospital of the Territory, continues to expand and a further increase in bed capacity will be achieved with the completion of the conversion of the old wards four and five into a modern, fully air-conditioned ward unit. Developments during the year which were welcomed by patients and staff alike included the introduction of selective menus, the installation of modern micro-wave ovens allowing instant meals of their own choice to be provided for night staff, the complete overhaul and expansion of the hospital instructions and the appointment of a full-time dietitian.

The staffing level among nurses at Darwin remained relatively stable, and the marked fluctuations that occurred in previous years were not experienced in 1968-69. The introduction of a staff nurse year with compulsory in-service training, the issue of revised nursing procedures with the improvement and standardisation of ward shifts, the allocation of rostered study days for student nurses and the return of a senior member of the nursing staff from advanced post graduate study all contributed to a successful year.

For the first time in any year, over 1,000 babies were delivered in the Darwin Hospital during 1968-69. This reflects in part the increasing tendency of Aboriginal mothers to have their children delivered in hospital.

The Katherine Hospital has been subjected to an increasing work load with the further development of the area. The Air Force base at Tindal and the export meat works at Katherine have contributed significantly to this development. The two resident doctors at the hospital experienced a busy year, having to meet not only the demands of the hospital but also to provide

Patients from outlying areas are transported to hospital in Dove aircraft of the Northern Territory Medical Service

a regular service to rural areas in the district. The completion of the demountable ward and staff quarters of the hospital will enable the sole remaining old fashioned ward to be demolished, thus preparing the way for the next stage of the expansion programme.

Tennant Creek Hospital has perhaps the most stable nursing staff of any of the Northern Territory hospitals. Approximately half the staff are permanent residents of the town and this has been of great assistance in ensuring staff continuity. The surveillance of mine workers under the silicosis and tuberculosis provisions of recent legislation continues to place a high demand on X-ray services at Tennant Creek, which now has an establishment of two full-time resident doctors.

There were heavy pressures on the paediatric section of the Alice Springs Hospital. These pressures, if not the abruptness of their arrival, had been expected as the long-term campaign for the improvement of Aboriginal child health, carried out in conjunction with the Professor of Child Health at the Adelaide University, Professor G. M. Maxwell, became increasingly effective.

Increased staff was provided in all departments and existing buildings were taxed to the limit to accommodate, in particular, the very large numbers of Aboriginal children requiring hospitalisation. As at Katherine, a transition stage in building is planned to enable the hospital to cope with its increasing patient load pending major new works.

An intensive care unit for paediatric patients was established and it is not expected that there will be any lessening of demand for this type of care in the near future. Infectious diseases, particularly bowel disorders such as shigella and salmonella infections, continue to be a major cause of concern in those evacuated from rural areas. The high prevalence of respiratory diseases amongst children in the area, recently documented in an article in *The Australian Medical Journal,* also contributes to the numbers requiring skilled medical care.

A.C.T. Health

Planning for the expansion of health services for the Australian Capital Territory continues to be a major function of the A.C.T. Health Services Branch. The planning of psychiatric services received particular attention during the past year and a report on the development of these services was completed.

Another planning project during the year involved the preparations for the takeover by the Branch of the thirty-two baby health centres and clinics operated in the A.C.T. by the Canberra Mothercraft Society. This takeover was arranged to take effect from 1 July 1969.

In the planning of new services care is being taken to ensure that they can readily be integrated and co-ordinated with existing services conducted by this and other Departments.

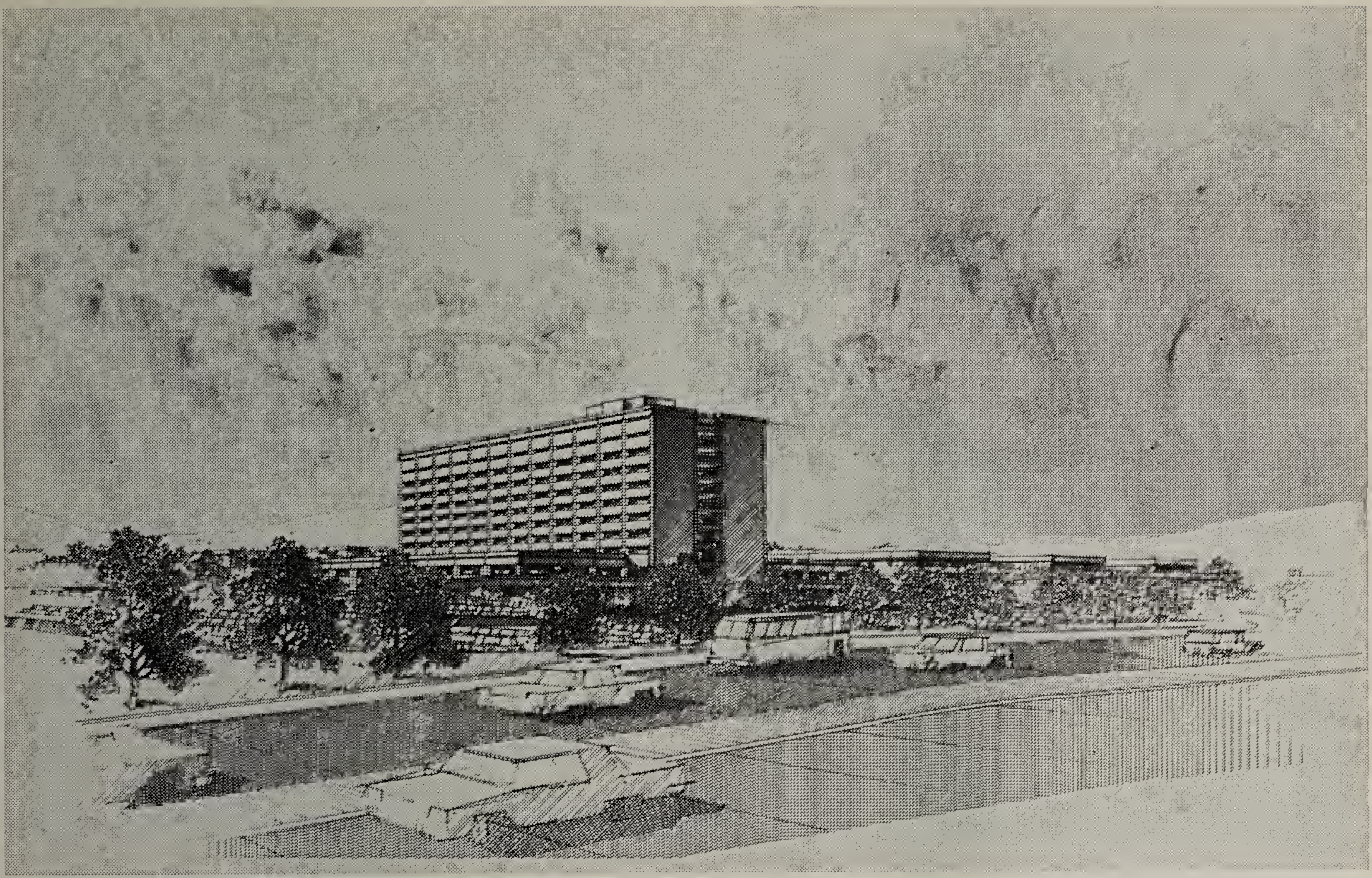
Hospital planning

Progress continued during the year with development of working drawings for both the Woden Valley Hospital, to be built in the suburb of Garran, and the Calvary Hospital, to be constructed in the suburb of Bruce in the Belconnen district. Full documentation has been completed and tenders have been called for construction of the main block of the Woden Valley Hospital. Bulk excavation work on the site has been carried out so that construction work can begin as soon as possible after the building contract is let. Work has also commenced on preparation of schedules of equipment and furnishings for each room in this hospital.

Close liaison between members of the Hospital Planning Unit of the A.C.T. Health Services Branch and the Order of the Little Company of Mary and its architects has been maintained during preparation of the working drawings for the Calvary Hospital. A full-time secretary has been appointed for the hospital and his many planning duties entail frequent consultation with departmental officers.

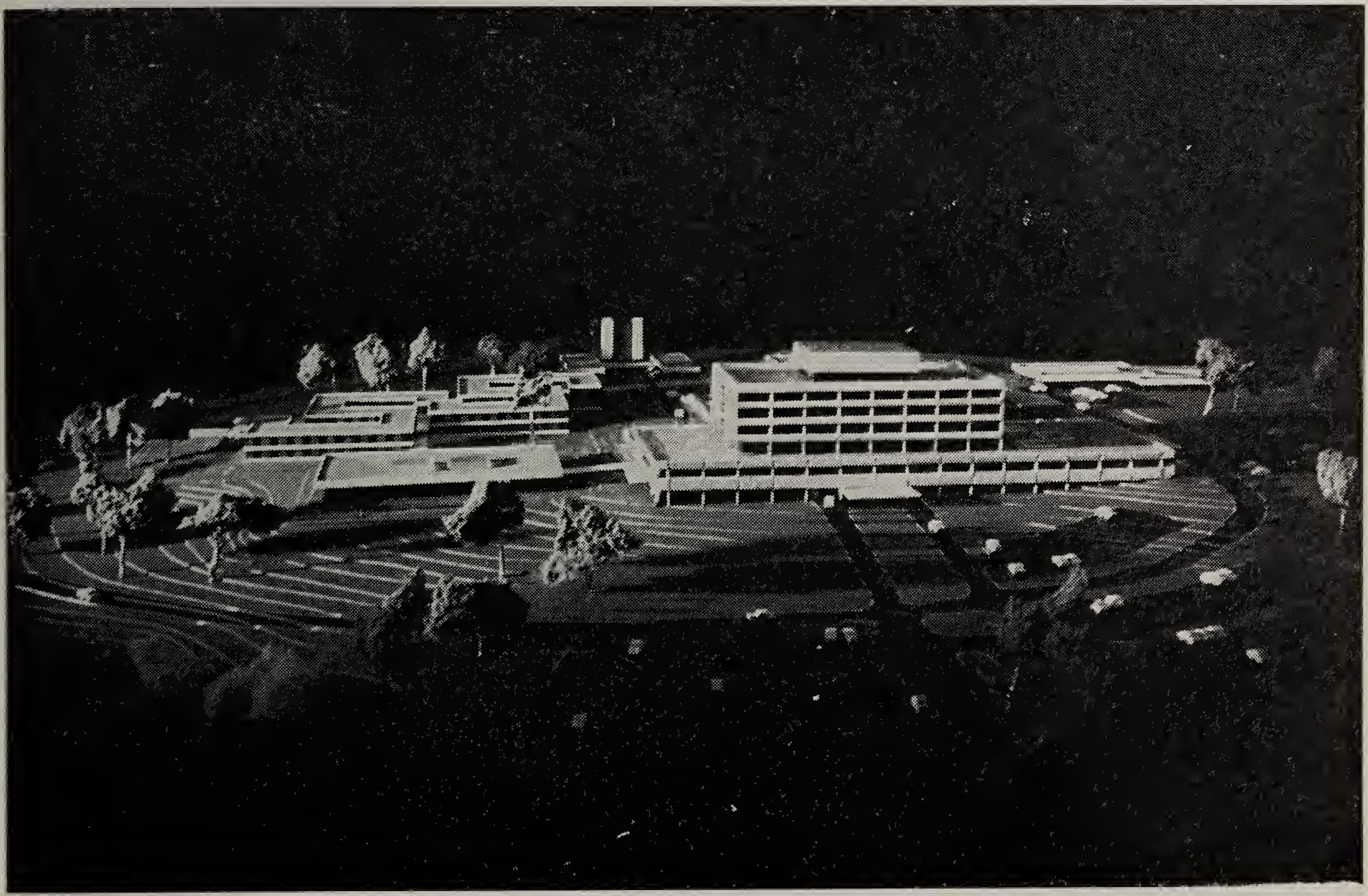
As part of the integration of services between these two hospitals and the existing Canberra Hospital, plans have been developed for a central linen service and a central sterlising service based on the Canberra Hospital. These will necessitate alteration and expansion of the present services. The hospital authorities have been consulted in this planning by the departments of Works and Health.

Planning for the fourth general hospital in the A.C.T., to follow the construction of the Calvary and Woden Valley hospitals, also proceeded during the year. At the request of the Minister of Health, the A.C.T. Hospital Advisory Committee appointed an expert panel to develop a conceptual brief for this hospital, which is to be located in the Belconnen district. Membership of the panel includes representatives of the A.C.T. Advisory Council, the A.C.T. Branch of the Australian Medical Association, the Canberra Hospital, the Australian National University, the A.C.T. Hospital Advisory Committee and the departments of Works and Health.



Architect's drawing of the Woden Valley Hospital, to be built in the Canberra suburb of Garran

The Calvary Hospital, to be constructed in the Belconnen district of Canberra



A.C.T. Hospital Advisory Committee

The A.C.T. Hospital Advisory Committee met regularly during the year. Included among the items considered were a study of the present pathological services provided to the Canberra Hospital and the integration of these services as new hospitals are built, nursing home facilities in the A.C.T., the care of geriatric patients in the A.C.T., a central nurses training school, the appointment of a planning panel for the fourth A.C.T. hospital, the integration of hospital services, the proposal to classify medical staff at the Canberra Hospital, the allocation of specialties between the A.C.T. hospitals and the timing of the appointments of a chief executive officer. secretary and matron for the Woden Valley Hospital.

School Medical Service

Routine and special medical examinations of children in the A.C.T. were continued throughout the year and, due to a re-organisation of procedure, it was possible to examine an increased number of children. The population of the sixty schools in the A.C.T. numbered approximately 31,000 by the end of the year, of whom 14,188 were seen by the service. This compares with 13,679 out of 28,300 children seen during 1967-68. Fourteen pre-schools were also visited and 600 children examined. The School Medical Service aims to visit every school and pre-school each year, although only a proportion of the children may be seen each time.

The variety of defects has not varied significantly from previous years. Details of defects found are given in table 60, on page 134.

An air-jet vaccinator being used to immunise children against measles at the A.C.T. Health Services Branch, Canberra

Immunisation

Regular immunisation clinics were held throughout the year at various mothercraft centres and at the new immunisation centre in the A.C.T. Health Services building. Three new clinics were started during the year. Regular visits were also made to Jervis Bay and Wreck Bay. A total of 11,577 injections of either triple antigen or combined diphtheria and tetanus vaccine were administered, compared with 11,316 in 1967-68.

Immunisation against poliomyelitis using Sabin vaccine was also continued at several clinics. In all, 15,439 doses were issued, 27.4 per cent being given to adults.

A measles immunisation campaign, utilising an air-jet vaccinator, was commenced early in March 1969. Just over 1,000 doses of measles vaccine were administered before the campaign was stopped as a precautionary measure while inquiries were made into reports from overseas of cases of illness possibly associated with the type of vaccine being used. No serious adverse effects were reported among people vaccinated in Canberra.

The air-jet vaccinator was also used in the annual Commonwealth influenza vaccination campaign. Using this machine it was found that 750 doses per hour could be administered provided an adequate flow of recipients was maintained. After a few minor difficulties had been rectified by technicians of the National Biological Standards Laboratory, the vaccinator gun worked smoothly and efficiently and a total 13,932 doses of A2 Hong Kong influenza vaccine were administered in the routine campaign. A further 4,084 doses were administered in a controlled investigation in which half the volunteers received the current influenza virus vaccine and the remainder a vaccine with the Hong Kong strain omitted.

Mothercraft centres

During the year a further five new mothercraft clinics were opened in developing Canberra suburbs, bringing the total to thirty-two. This pattern of expansion is resulting in a considerable strain on the Canberra Mothercraft Society's resources and arrangements were accordingly made for the Mothercraft Baby Health Centres and sisters to be transferred to the A.C.T. Health Services Branch as from 1 July 1969.

Psychiatric services

Since the appointment of the Director of Psychiatry, planning of the psychiatric services has progressed and, at the same time, close liaison has been established with interested community groups. Much emphasis has been placed on mental health education and frequent talks have been given to community groups. Advice has been given in a number of discussions to the leaders and innovators of community organisations which assist people in crisis situations. In co-operation with other agencies a comprehensive in-service course has been established for district nurses, police, social workers and welfare assistants and rehabilitation and psychiatric unit staff. Detailed discussions have been held with the Handicapped Children's Association about future developments of intellectual handicap services.

Among other developments, the District Nursing Service has provided a community nurse to undertake increased domiciliary services to the more severely handicapped and their families. In addition a small hostel has already been obtained to provide rehabilitative after-care to psychiatrically and physically handicapped adults.

The only psychiatric service as yet staffed as an established service is the Child Guidance Clinic, which has been in operation for three years. Its activities have expanded rapidly but, with the appointment of additional staff and a partial re-organisation of its activities along community mental health lines, there is no longer any waiting list for first appointment. A great amount of preventive and clinical work has been carried out by the clinic, and the waiting list which remains of families for long-term therapy is under review. The allocation of regional responsibilities to staff and the development of an introductory group discussion for new referrals have also proved effective. The total number of new referrals averaged 7.5 per week throughout the year and many other families were helped indirectly by consultative advice to workers in other agencies.

Health Laboratory

The work volume of the Health Laboratory again rose by between 25 and 30 per cent during the year. This is due to the rapid increase of population and of the number of medical practitioners in the A.C.T. and to the increase in specialisation and sophistication of hospital services.

The small radio-isotope unit has completed its first year of operation and has provided a very useful diagnostic service. The cytology service continued to expand rapidly with an increased work load of almost 50 per cent over last year. A wide range of investigations in the fields of biochemistry, histopathology, morbid anatomy, cytology, haematology, serology, microbiology and radio isotopes were carried out on behalf of the hospital, local and district practitioners and the police.

Public Health Laboratory

The Public Health Laboratory, located in the Institute of Anatomy, carried out a steady volume of chemical and bacteriological tests on water, dairy products and food samples, blood alcohol estimations and toxicological investigations. Further work was also done on the examination of foods and pesticide residues.

The total number of water and food samples, chemical analysis and sewerage and effluent tests during the year was 7,702, an increase of 996 over the figure for 1967-68. A steady increase in medico-legal blood alcohol and blood barbiturate determinations has been noted.

Nursing services

Attention has been paid during the year to co-ordinating the work of the various nursing sections of the A.C.T. Health Services and the basis is being laid for a comprehensive community nursing service.

In addition to nursing services, the Nursing Section is responsible for certain aspects of hospital and nursing planning, advice on nursing administration and education and the review of nursing legislation.

The District Nursing Service has extended its operations and its members are now working with the psychiatric service as well as with general care patients. There are now sixteen district nurses providing services to people in their own homes, giving assistance to the Rehabilitation Centre of the Canberra Hospital and co-operating with general practitioners, hospital, departmental and voluntary agencies.

National Fitness

The National Fitness Section has continued to provide assistance to recreational and youth organisations. Grants during the year totalled $5,687. These were given for approved leadership training, the provision of physical recreation equipment and minor capital works. A total of fifty-six organisations shared in these grants. In addition, a programme resources service in the form of leadership books, visual aids and personal consultation was provided.

Support has been continued for groups involved in areas of National Fitness interest, including the Duke of Edinburgh's Award Committee and the Youth Council of the A.C.T. Co-operation with the Department of Education and Science and the Department of the Interior has enabled vacation swimming schools and play centres to be conducted during school vacations. In addition, preliminary work has begun on the promotion of 'life-long' sports in the A.C.T. and on the development of an A.C.T. National Fitness training centre.

A nursing sister of the District Nursing Service assists a patient to board a specially equipped bus for the Rehabilitation Centre, Canberra Hospital

Child dental services

Dental examination and treatment was provided for children attending infants' and primary schools in both the city and rural areas of the A.C.T. Recruitment of dentists proved a problem and this resulted in a decline in the number of children examined from 12,129 in 1967-68 to 10,132 in 1968-69. However, there were indications that the recruitment position will be more favourable in 1969-70. Three new dental clinics were opened in Canberra during the year.

Training facilities for ten Commonwealth dental therapists-in-training were provided in Hobart by the extension of the Tasmanian Training School. This building extension, together with the necessary equipment, was financed by the Commonwealth. Up to five Commonwealth dental therapists will graduate each year from the School. The first four therapists will complete their training in December, 1969.

The long-term investigation to assess the value of the fluoridation of Canberra's water supply was continued. During the 1968 calendar year 6,492 children aged from six to twelve years who had lived continuously in Canberra since fluoridation began in 1964 were examined. These children had 34.7% less decayed permanent teeth than children of the same age who were examined in 1964 prior to the commencement of fluoridation.

Trainee dental therapists from the A.C.T. Health Services Branch are among a group of students training in Tasmania

Chest clinic

The chest clinic work load increased considerably during the year. This was due partly to the rise in the A.C.T. population and partly to increased emphasis on out-patient treatment and of follow-up of those with X-ray evidence of old, inactive tuberculosis. This is in keeping with a similar trend throughout Australia towards domiciliary treatment and increased chest clinic supervision of tuberculous patients. It is presenting a distinct challenge to the professional and lay staff, who must be prepared to change procedures to meet the new situations and increased work load.

In addition to examination of contacts and school children, the clinic carries out skin tests and B.C.G. vaccination on persons referred by the Armed Services, the Commonwealth Medical Officers, private practitioners and hospital staff. Brick and quarry workers and other persons working in dusty occupations are X-rayed in the chest clinic.

The Canberra Chest Clinic is now located centrally in a modern suite in the C.M.L. Building, Darwin Place, Canberra City, but continues to maintain two sessions each week at the Canberra Hospital.

Professional boards

The six professional boards were re-appointed by the Minister for Health for further terms of office. The Medical Board held 12 meetings and registered 32 medical practitioners. The Board recommended amendments to the Medical Practitioners Registration Ordinance on the requirements for registration and also that a register of specialists be adopted in the A.C.T.

The Dental Board held 12 meetings and registered 6 dental practitioners. The Board recommended an amendment to the Dental Practitioners Registration Ordinance to allow prescribing by dentists and is examining the legislation relating to registration requirements.

The Pharmacy Board met 7 times and registered 20 pharmacists. Recommendations on the question of ownership and management of pharmacies were made. The Board also acted on a number of breaches of the Pharmacy Ordinance concerning advertising.

The Optometrist's Board met twice and registered three optometrists. A review of the Optometrists' Registration Ordinance was commenced.

The Nurses Board met 12 times, registered 302 nurses and enrolled 59 nursing aides. The Board is making a study of nursing education in the A.C.T.

Pharmaceutical Section

The Pharmaceutical Section completed its first full year of operation. Pharmacies were inspected under the provisions of the Poisons and Dangerous Drugs Ordinance and the Pharmacy Ordinance of the A.C.T. Other retail and wholesale premises were inspected prior to being licensed by the Pharmacy Board.

Two cases of addiction to a dangerous drug were investigated and appropriate action taken. Circulars were sent to medical practitioners in the A.C.T. drawing their attention to the possibility of patients becoming addicted to certain drugs.

During the year the Pharmaceutical Section took over the issue of 'Authorities to Prescribe Restricted Pharmaceutical Benefits' from Central Office. Due to recent variations in the allowable conditions for certain of these benefits, the numbers of 'authorities' issued has doubled.

Pharmacists, wholesalers and members of the general public made use of the Section during the year to obtain advice on matters dealing with the supply of pharmaceuticals, poisonous substances and pharmaceutical benefits.

Ambulance Service

A 17 per cent increase in cases was handled by the A.C.T. Ambulance Service during 1968-69. Woden Valley calls were responsible for much of this increase, and the establishment of a station in the Woden Valley, planned for 1970 to supplement those at Dickson and Griffith, will provide the Woden Valley and Weston Creek with an improved service.

There was a marked increase in the number of rehabilitation day-hospital patients during the year and to cope with the growing demand for this service, plans have been made for a 20-seater bus with wheel-chair loading facilities to be put into operation before the end of 1969 to replace the present small rehabilitation wagon.

Substantial fee increases for ambulance transport were introduced on 1 June 1969 in an attempt to recover a greater percentage of ambulance operation expenditure.

Acoustic services

During the year the Acoustic Laboratory was re-located in premises in Ainslie Building, Canberra City, which has a lift service, and this allowed a more convenient service to be provided for pensioner and Repatriation patients.

Staff from the Central Acoustic Laboratories in Sydney visit Canberra to provide an acoustic service for school children, pensioners and Repatriation patients. During the year they were present in Canberra on thirty-eight days and 118 children were seen for the first time and 172 re-examined. In addition, the staff tested sixty new pensioner cases and re-examined sixteen pensioners as well as seeing forty-one Repatriation cases for the first time and re-examining sixty-nine of these patients.

Nursing homes

The first stage of the Morling Lodge nursing home, built for the New South Wales Baptist Homes Trust, was opened in February 1968 and a contract for the second stage was let in May 1969. Commonwealth financial support for this project was increased during the year and the completion of stage two will increase the bed capacity of the home from thirty-four to seventy-one.

Public health

Daily sampling of the A.C.T. water supply was continued to ensure that an adequate fluoride level is maintained and that the water is potable. Samples were also taken from sewage effluents at Weston Creek and Fyshwick Sewage Treatment Works to check on the efficiency of these works.

General supervision was maintained over the manufacture, storage and sale condition of all foodstuffs and milk processing and vending arrangements were regularly checked.

Quarantine inspections were made of international aircraft arriving at Canberra Airport as a first port of entry and daily quarantine checks were made of overseas parcels received at the Canberra mail exchange under bond.

Venereal disease

There was an increase in the number of cases of gonorrhoea notified in the A.C.T. in 1968-69. The figure rose from thirty-four cases in 1967-68 to fifty-eight in 1968-69. No cases of syphilis were notified. Many of the cases of gonorrhoea were notified by the Medical Officer of Health on information received from the Hospital Laboratory. The following table shows venereal disease notifications since 1965.

Calendar Year	*Gonorrhoea*	*Syphilis*
1965	52	2
1966	25	1
1967	31	5
Financial year		
1967-68	34	3
1968-69	58	0

INSTITUTE OF ANATOMY

The Institute of Anatomy, located in Canberra, has two main functions. The Institute's Nutrition Research Unit makes studies of nutritional problems and carries out health educational activities in the field of nutrition. The Institute also conducts two museums, one containing anatomical displays and the other material of the National Ethnographic Collection.

In the Nutrition Unit the booklet *Tables of Composition of Australian Foods* has been completely rewritten and extended to cover a number of cooked dishes commonly prepared in Australia as well as several additional nutrients.

A study of diets and nitrogen balances carried out in 1967 revealed an apparent excessive loss of nitrogen in the excreta of New Guineans whose diet is based on sweet potatoes. Further studies into this subject were continued during the past year.

In the Museums Section an important addition to the ethnographic collection was the presentation by Her Excellency, Lady Casey, of several very fine works of art from New Guinea. The display dealing with the brain and nervous system was completed, and the revision of the display dealing with reproduction of life was continued. Part of an experimental exhibit designed to portray a concept of health and disease based on an analysis of basic needs of people and the ways in which these needs may be met, was completed.

Quarantine

During 1968-69, detailed planning was commenced for the quarantine clearance of 'Jumbo Jet' type aircraft, which are expected to begin operations into Australia from overseas in 1970-71. These aircraft have such large passenger carrying capacities and their proposed transit times at route ports are so short that early consideration of the problems they are expected to present to airport quarantine staff is necessary.

The first container cargo ships arrived in Australia towards the end of 1968-69 and special procedures for the quarantine control of their cargoes were put into effect. These procedures had been carefully planned and, at the time of writing, were working satisfactorily.

New quarantine measures are also being introduced to cover the situation brought about by developments in oil exploration in areas adjacent to Australia. Prior to the establishment of oil rigs off the Australian coast, quarantine procedures were based on the assumption that ships would call at conventional ports while in Australian waters. Oil rigs, however, may be based on small ports or other convenient locations around the Australian coast, including places unattended by either Customs or Quarantine authorities. Special precautions are therefore being introduced to prevent the entry of human, animal and plant diseases.

In September 1968 a conference was held in Canberra between New Zealand and Australian quarantine officials with a view to establishing more uniformity in quarantine controls over the movement of aircraft and shipping between the two countries.

New quarantine procedures regarding hours of clearance and radio-pratique for ships, which were introduced on 1 June 1968 proved satisfactory during 1968-69. Ships are now routinely cleared through quarantine from 6 a.m. to 10 p.m. whereas, prior to 1 June 1968, the hours observed for routine quarantine clearance were from sunrise to sunset.

New procedures for disposing of unconsumed, quarantinable food items carried on the larger commercial international aircraft for in-flight use were introduced on 1 February 1969. Previously, such food items were invariably seized and destroyed at the first port of entry into Australia and the aircraft were revictualled at that port. Now, subject to adequate safeguards against the introduction of disease, quarantinable food items intended for in-flight use on international aircraft are permitted to remain on board for use in flight or, if not used, for removal and destruction at the aircraft's terminal port, which may be either in Australia or overseas. This has facilitated the quarantine clearance of these aircraft at first ports of entry into Australia.

Studies of newer methods of disinsecting international aircraft were commenced during the year. This follows a recommendation by the twenty-first World Health Assembly in May 1968 that, for pressurised aircraft, a vapour disinsecting system might be used for in-flight disinsection as an alternative to aerosol disinsection on the ground on arrival, which is the method currently used in Australia.

HUMAN QUARANTINE

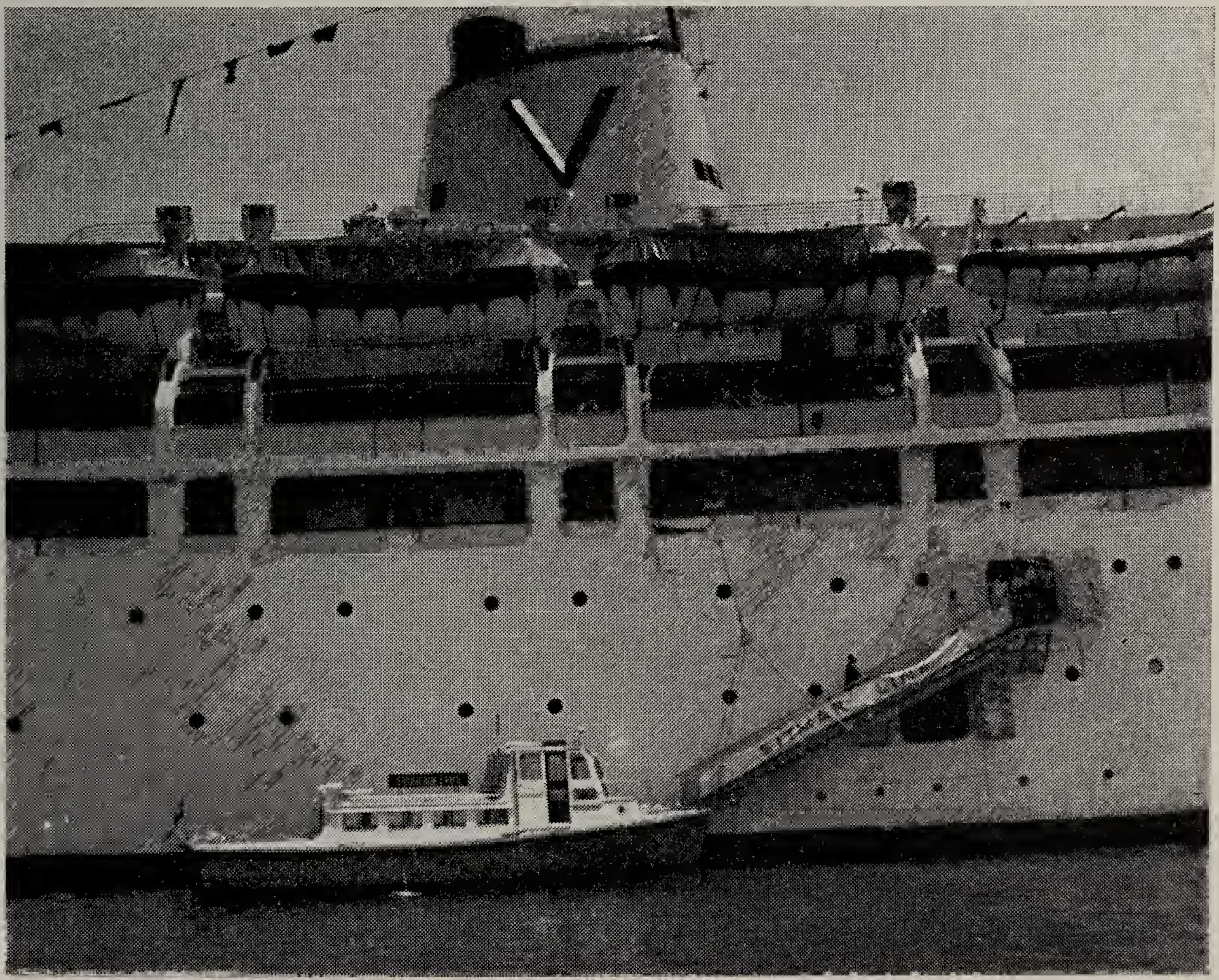
The Human Quarantine Branch had a busy year in 1968-69 with substantial increases in the numbers of ships and aircraft arriving in Australia from overseas. A total of 4,813 ships were cleared through quarantine in 1968-69 compared with 4,440 in 1967-68. The number of aircraft cleared in 1968-69 was 5,896. This compared with 4,968 aircraft cleared in 1967-68.

During 1968-69 no quarantinable disease—smallpox, cholera, yellow fever, plague, typhus or leprosy—was introduced into Australia. The total number of persons cleared through quarantine was 1,044,414. This compared with 873,734 in 1967-68.

The number of persons arriving in Australia by air from overseas with invalid or with no International Certificates of Vaccination continues to cause concern. During 1968-69 it was necessary to vaccinate 3,518 persons against smallpox and 2,139 persons against cholera on their arrival from overseas. One hundred and thirty-six persons were detained in quarantine stations because they were unable to be vaccinated against smallpox. Three persons were similarly detained because they could not be vaccinated against cholera.

Five persons arrived in Australia from yellow fever endemic areas unvaccinated against that disease. All were detained in quarantine until six days had elapsed from the date they had left the yellow fever endemic area.

Because of the growth of quarantine activities due to the increasing traffic volumes of air and sea transport and the necessity to plan and implement new quarantine procedures, a new position of Assistant Director-General, General Quarantine and Health Standards Branch, was created and a permanent appointment to this position was made in July 1968.



The quarantine launch Pasteur *alongside the liner* Fairsky *in Sydney Harbour*

ANIMAL QUARANTINE

The Animal Quarantine Branch continued its activities during the year aimed at guarding against the introduction of livestock diseases. Following a critical review of the world disease situation and existing quarantine requirements, it was found possible during the year to permit the importation of some cattle into Australia for the first time since 1958 and also of canned pigmeats from sources previously subject to quarantine prohibition.

Legislation

Two new proclamations dealing with animal quarantine came into effect during the year. Proclamation 80A, gazetted on 27 September 1968, revoked the provisions of Proclamation 77A, which prohibited the importation of canned pigmeat, and provided for the importation of such pigmeat under certain conditions of heat treatment and certification. Proclamation 81A, gazetted on 10 February 1969, revoked the provisions of Proclamation 76A prohibiting the importation of cattle to allow such importations from New Zealand under certain conditions of testing and certification.

Overseas training in exotic diseases

Further arrangements were made during the year for overseas training for veterinary officers. At the invitation of the New Zealand Department of Agriculture, veterinary officers from each State Department of Agriculture are to attend courses in exotic diseases being conducted at the Flock House Training Farm, near Palmerston North, New Zealand, between March and November 1969. The air fares of these officers are being met by the Commonwealth.

The aim of these courses is to provide instruction on the recognition of several of the more serious exotic diseases, and to familiarise course members with procedures that would be followed in New Zealand to eradicate an outbreak using a mock foot and mouth disease outbreak as the pattern.

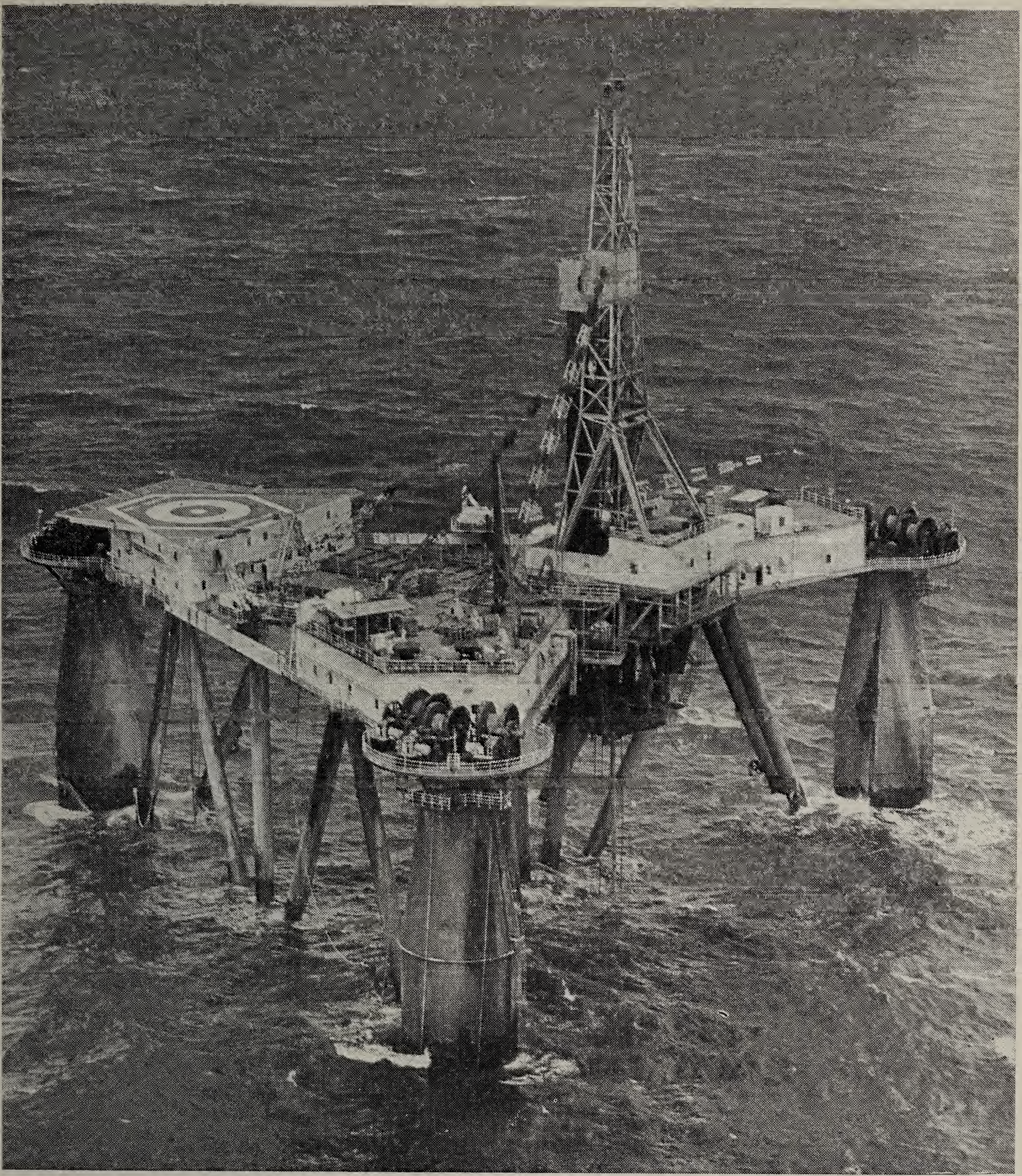
Australia and New Zealand share similar views on the importance of guarding against the introduction of diseases exotic to this region and have almost identical policies of eradication. Attendance at these courses is useful both for its intrinsic value and for the benefits which flow from a comparison of techniques used in organising and conducting such courses.

Overseas activities

The Assistant Director-General (Animal Quarantine Branch) attended the Australia-New Zealand Technical Committee on Animal and Plant Quarantine in Wellington, New Zealand, in November 1968. Another meeting of this Committee was held in Australia in April 1969. Also, in May 1969 the Assistant Director-General (Animal Quarantine Branch) represented Australia at the annual meeting in Paris of the Office International des Epizooties. While overseas he held discussions with officials of the Food and Agriculture Organisation in Rome and with the Chief Veterinary Officer of the British Ministry of Agriculture, Fisheries and Food. He also had discussions with Australian Immigration officials in Athens and Ankara on means of preventing the introduction of foot and mouth disease into Australia by migrants from Greece and Turkey.

Meetings and conferences

During the year the Assistant Director-General (Animal Quarantine Branch) attended meetings of the Standing Committee on Agriculture and of the Australian Agricultural Council, the Cattle Tick Control Commission and meetings of the Commonwealth and States Veterinary Committee. Other meetings attended by representatives of the Animal Quarantine Branch included a conference of Chief Quarantine Officers (Animals) and meetings of the Exotic Diseases Committee of the Animal Health Advisory Group, South Pacific Commission.



All off-shore oil drilling rigs and their contents, like this one in the Otway Basin area of Bass Strait, are subject to Commonwealth quarantine regulations

Imports subject to quarantine

The number of animals subject to quarantine imported during 1968-69 was 3,711 compared with 3,767 in the previous year. Detailed statistics for 1968-69 are given in table 54 on page 132.

With the continuation of the prohibition on the importation of ruminant animals (except from New Zealand) and pigs, the emphasis in animal quarantine work has been on problems associated with importing products of animal origin which could present a risk of introducing exotic diseases of animals.

PLANT QUARANTINE

The tempo and scope of plant quarantine activities increased during the year. The main factors involved were the commencement of container cargo shipping from overseas, the continuing effect of drought in parts of Australia, the increase in ship and air passenger traffic from overseas, including tourist traffic in the Pacific area, the development of post-entry plant quarantine facilities and the taking over of passenger plant quarantine examination at Perth airport.

The State Departments of Agriculture continued to provide full co-operation in the work of preventing the introduction of plant pests and disease into Australia and the services of their officers in supervising plant quarantine in the States on behalf of the Commonwealth are much appreciated.

Legislation

Several new proclamations relating to plant quarantine came into effect during the year. These were Proclamation 60P, a new listing of weeds prohibited from entry into Australia; Proclamation 61P, which prohibits the importation of potatoes (tubers or parts thereof or plants) without the consent of the Director of Quarantine in writing; and Proclamation 62P, which prohibits the importation of straw or chaff (including hay, straw or chaff used as packing material) without the permission of the Director of Quarantine.

Drought

Although seasonal conditions in south-east Australia improved earlier in the year, drought conditions developed in Queensland and the Northern Tablelands of New South Wales. In Queensland peanut production has been drastically reduced and this has necessitated the importation of peanuts from overseas. This has been arranged under strict quarantine control allowing for processing only in metropolitan areas of State capital cities. Other plant commodities normally restricted but which are being imported under quarantine control are linseed, safflower and ginger.

Nursery stock

The importation of nursery stock continues at a manageable level. Full screening for disease of stone, berry and pome fruits, together with grape vines, is undertaken at the few centres in Australia where staff and facilities are available for the specialised and exacting task of virus testing. State Departments of Agriculture and the Waite Agricultural Research Institute, in South Australia, are engaged in this specialised screening.

Post-entry quarantine facilities

Further extensions were made during the year to the facilities for post-entry quarantine. A post-entry quarantine facility comprising three quarantine houses was completed and began operation at the Division of Science Services, Department of Agriculture, Rydalmere, New South Wales late in 1968. At the Botanic Gardens in Adelaide operations began in the post-entry quarantine glasshouse. At Berrimah, near Darwin, the post-entry quarantine glasshouse was in full operation. It was engaged mainly in the screening of rice varieties introduced from overseas.

Container cargo

The container carriage of goods, including plant items, has made necessary a radical review of plant quarantine procedures. The new procedures being implemented at Australian ports are outlined in the brochure *Cargo*

Containers and Unit Loads—Quarantine Aspects and Procedures released by the Department of Health in October 1968.

Forward planning has provided a very satisfactory initial performance in handling cargo containers. As mentioned in the introductory chapter of this report, the co-operation of the companies which have introduced large-scale container services to Australia has been most gratifying. In all these activities the Quarantine Division of the Department of Health has worked closely with the Department of Customs and Excise and the Plant Quarantine Branch has received specialised advice from the C.S.I.R.O. Division of Forest Products.

Conferences and consultations

The Assistant Director-General (Plant Quarantine) attended a meeting of the Australia-New Zealand Technical Committee on Animal and Plant Quarantine held in Canberra in April. Main items of concern to Plant Quarantine which were discussed were plant and seed importations from New Zealand to Australia, bean seed certification schemes and roll-on-roll-off trans-Tasman shipping container transport. The Assistant Director-General (Plant Quarantine) also attended the Fifteenth Congress of the International Seed Testing Association (I.S.T.A.) held at Palmerston North, New Zealand, in November. The Senior Plant Quarantine Officer (Entomology) visited the United States and Canada to discuss the latest advances in plant quarantine treatments with special attention being given to fumigation with methyl bromide.

Timber imports

Over 500 million super feet of timber was imported into Australia during the year and required close supervision by the Plant Quarantine Branch. Quarantine officers at the port of Sydney, which handles about half of the total timber imports, intercepted about 400 separate pest infestations during the year. The main pests intercepted were Bostrychid, Lyctid and Cerambycid borers and Ambrosia beetle.

Biological control

The programme for the control of Sirex wasp has concentrated on biological control by the introduction of additional insect parasites.

In the past year several insect parasites and predators of groundsel bush were introduced into Queensland in an endeavour to control this weed pest, which is localised in the south-east portion of that State.

Officers' course

The third course for plant quarantine officers was held in Canberra in May 1969 where, because of the ready access to the Plant Quarantine Laboratory at Yarralumla, emphasis was given to plant quarantine procedures involving nursery stock importations. However, the course met the principal aims of the previous courses by providing a broad concept of plant quarantine as it operates throughout Australia. Plant quarantine officers from all States attended the course.

International co-operation

In October-December 1968 a course of twelve weeks duration in plant quarantine was given in Canberra to sixteen international fellows from twelve different countries under the Colombo Plan, Special Commonwealth African Assistance Plan and the South Pacific Aid Programme. Visits were made during the course to rural areas in New South Wales and Victoria and to the ports of Sydney and Melbourne to demonstrate practical aspects.

International Fellows studying plant quarantine procedures under the direction of senior officers of the Plant Quarantine Branch

Unloading of the container cargo vessel Encounter Bay *at a Sydney shipping terminal*

Plant Quarantine Laboratory

Work continued in the Plant Quarantine Laboratory at Yarralumla, Canberra, on fumigation techniques, seed treatments against seed-borne diseases, seed devitalisation, virus screening of introduced fruit varieties, nematode studies and glasshouse and screenhouse procedures.

International car rally

In December 1968 seventy-two cars competing in a London to Sydney car rally were unloaded in Fremantle for the last leg of the rally. Every car had to be steam cleaned to remove soil which may have been picked up between London and Bombay. This operation was undertaken under the supervision of plant quarantine officers in Western Australia. In addition to the steam cleaning, all quarantinable plant and animal items were removed from the cars and the baggage of the competitors.

Publicity

The plant quarantine publicity campaign sponsored by the Australian Agricultural Council and funded from Commonwealth and State financial resources continued for the seventeenth successive year. The campaign is aimed at assisting to keep Australia free of plant pests and diseases and at reducing the spread of plant diseases and pests already in Australia. Emphasis during the year was given to the production of plant quarantine literature for distribution by airline, shipping, tourist and motoring organisations and through government channels. A start was made on the production of a new film on plant quarantine.

Tuberculosis

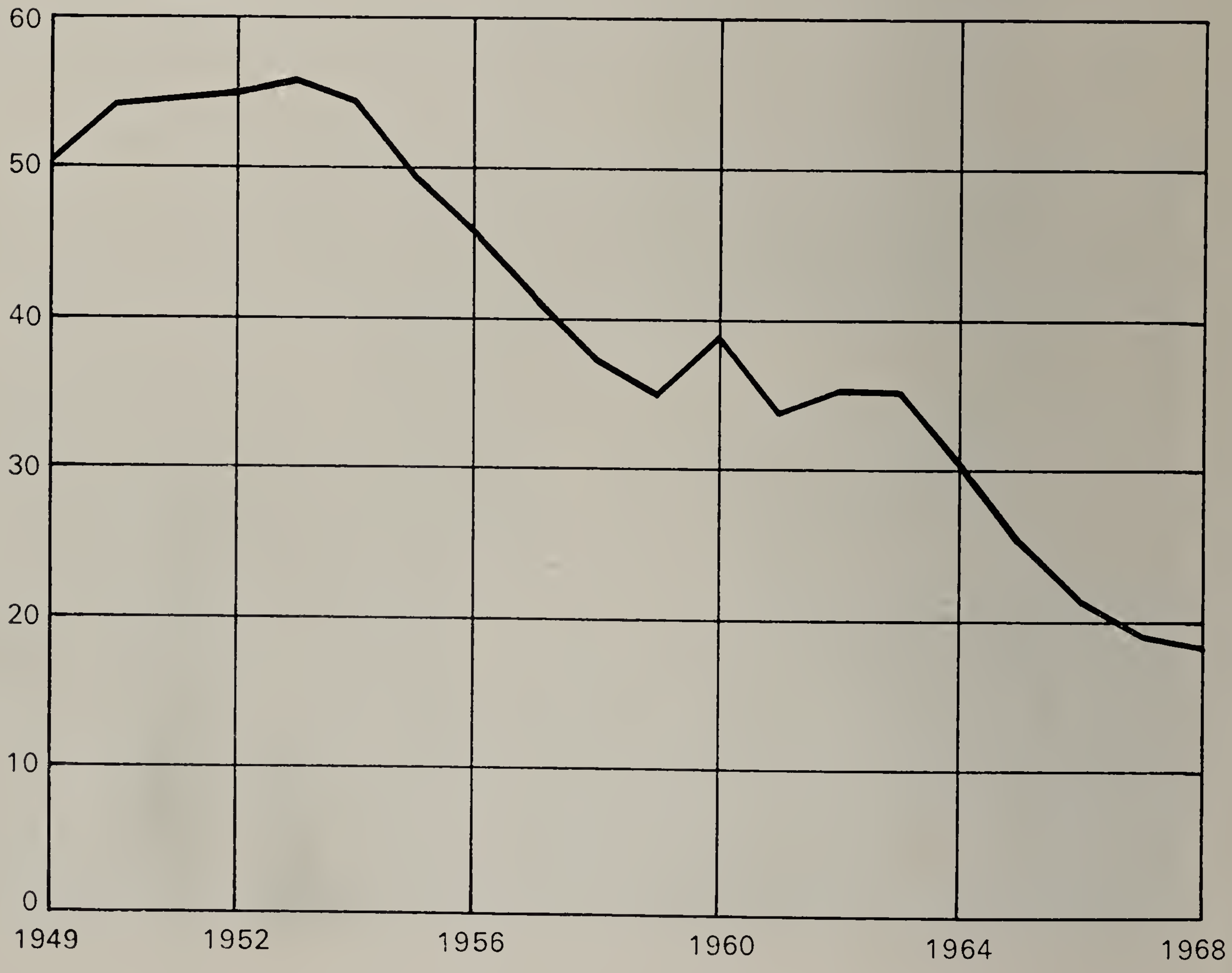
In the 1968 calendar year a further reduction in notifications of tuberculosis was recorded. There were 2,233 new cases discovered compared with 2,293 in 1967. Decreases were also registered in the number of persons with known, old treated or untreated lesions who broke down with active tuberculosis—from 239 in 1967 to 198 in 1968—and in the number of persons receiving tuberculosis allowances—from 1,009 at 31 December 1967 to 858 at 31 December 1968.

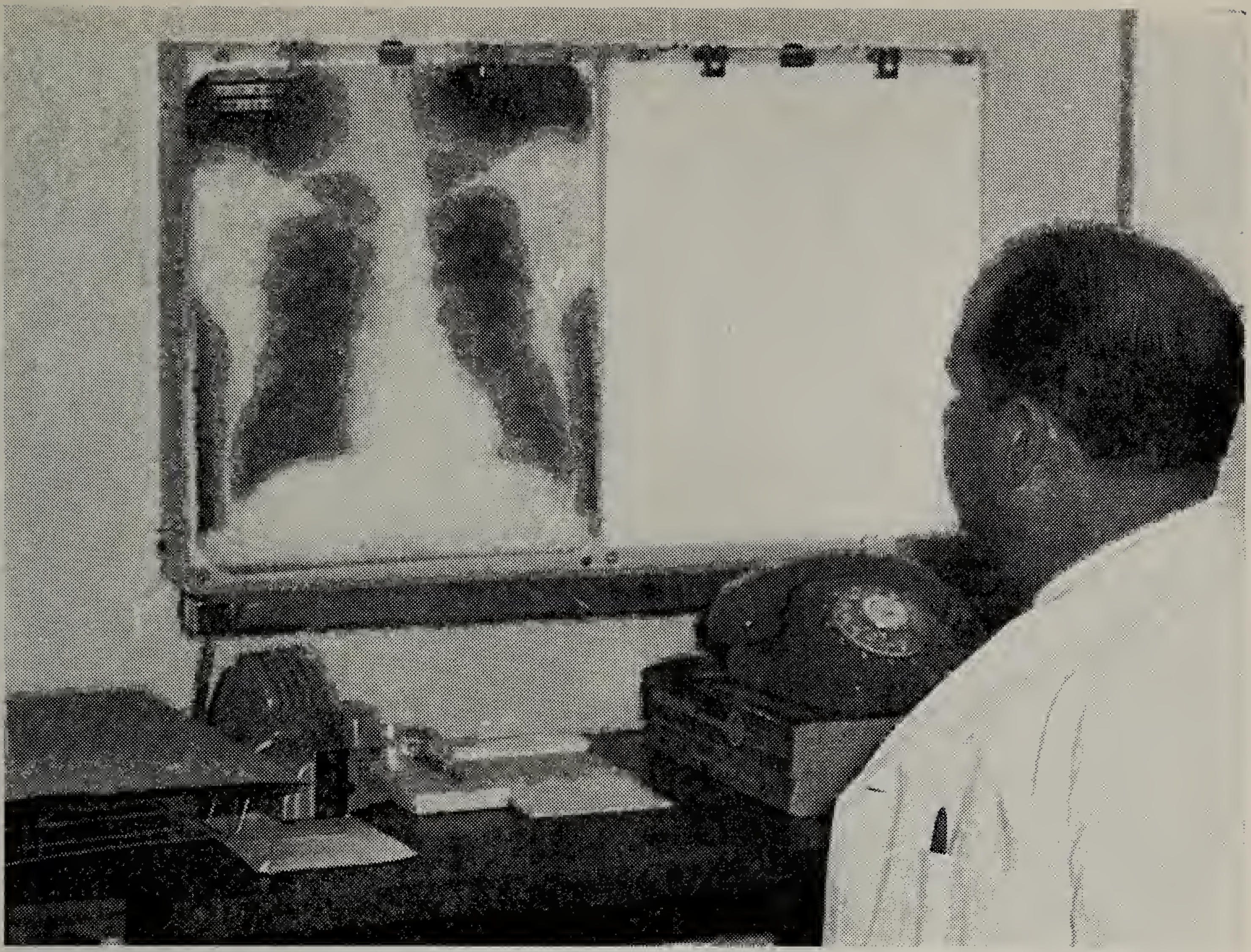
Although there was an overall reduction in new cases it was not as great as in previous years and, in fact, three States reported increased notifications The increases ranged from one in Tasmania, to nine in Western Australia and twenty-five in Queensland. Western Australia had an increase for the second year in succession. The increased figures reported in three States in 1968, along with those in 1967, when increases occurred in two States, represent a reversal of the previously consistent downward trend in notifications in recent years. When related to the increase in population, a higher rate of notification was shown in two of the three States with increased numbers in 1968.

TUBERCULOSIS (All forms)

INCIDENCE PER 100,000 POPULATION

1949–1968





A Medical Officer examines an X-ray at the Coburg Chest Clinic in Victoria

It is probably significant that the increases did not only occur in the States with the lowest incidence rates and it cannot be assumed that these States have yet reached the stage where the disease might be considered to be under control. Any failure to register a decrease in this important notification index must be viewed with concern. Because of the infectious nature of tuberculosis, which can rapidly recrudesce, it is important that an effective and intensive campaign be maintained.

The graph on page 56 shows the downward trend in notifications of all forms of tuberculosis but indicates also that there is still much work to be done.

Statistical details on notifications are set out in table 43 on page 127.

Chest clinics

Previous reports have referred to the more important role to be played by chest clinics in tuberculosis control as the emphasis in treatment changes from hospitalisation to treatment in the patient's home under clinic supervision. During 1968 the construction of a major new clinic at Prahran, Victoria, was commenced and is nearing completion. This clinic is being financed under the Tuberculosis Arrangement at a cost of approximately $225,000.

Another important development during the year was the provision of 100 mm X-ray units at some clinics. One of the first of this type of unit with automatic processor to be used in Australia was installed at the Canberra Hospital Chest Clinic. The great advantage of these units over the 70 mm units is that they provide a film which is generally accepted as being of diagnostic quality. The 70 mm films are not always accepted as being of diagnostic quality and frequently physicians have to call for larger films to assist them in their diagnosis. The use of 100 mm units is expected to reduce greatly the number of large films that need to be taken.

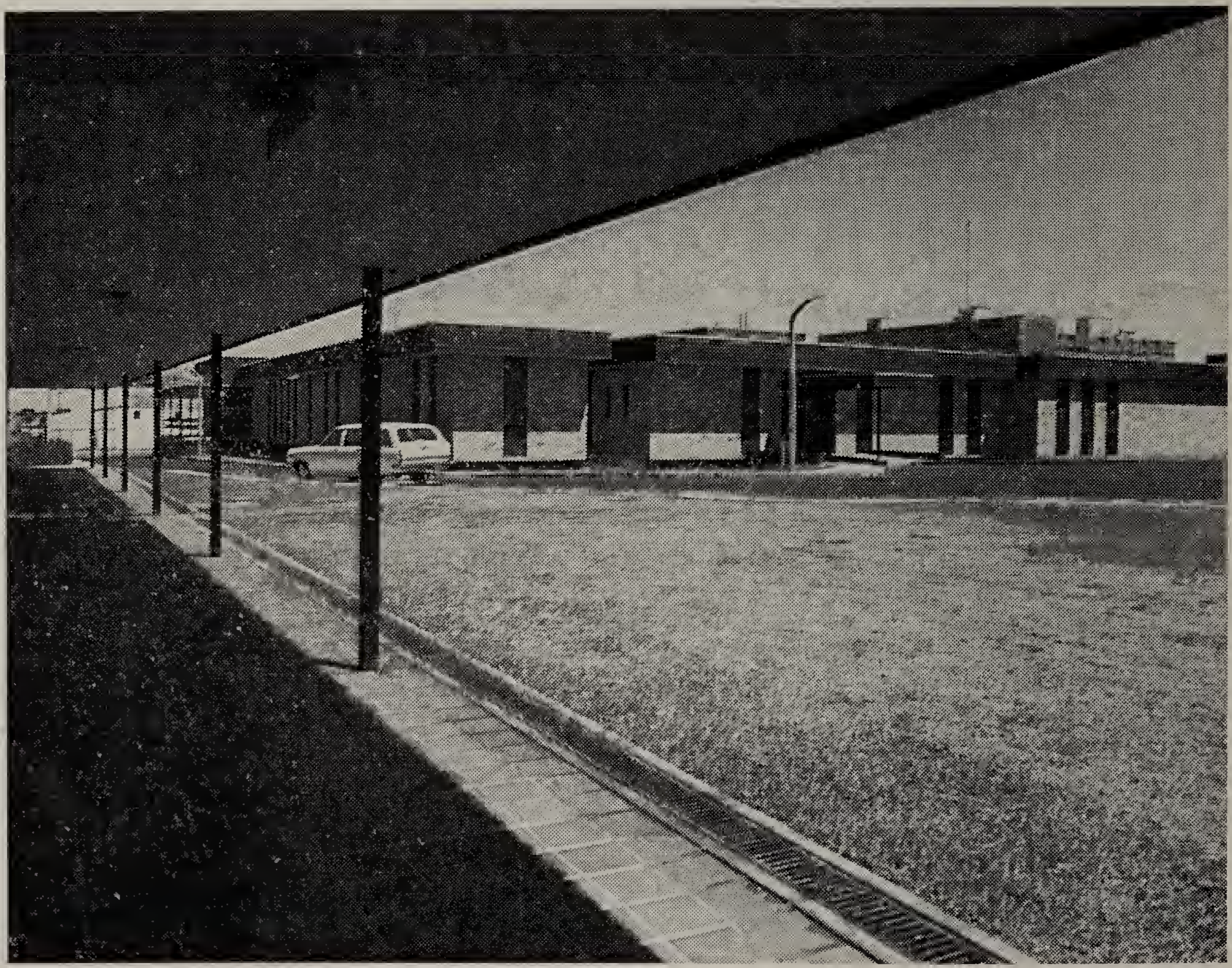
Randwick Chest Hospital

Three new villa type wards were officially opened during the year at the Randwick Chest Hospital. The wards, which were financed by the Commonwealth at a cost of just under $1m, provide first-class accommodation for 111 patients. They replace old, sub-standard wards which were not suitable for in-patient accommodation. The new accommodation at Randwick has enabled patients to be transferred from other small tuberculosis units attached to various Sydney hospitals. Because of low occupancy rates it has in some cases become impracticable to maintain these small units. In addition, the beds in these units have been sought by hospital authorities to provide urgently needed accommodation for other patients.

National Tuberculosis Advisory Council

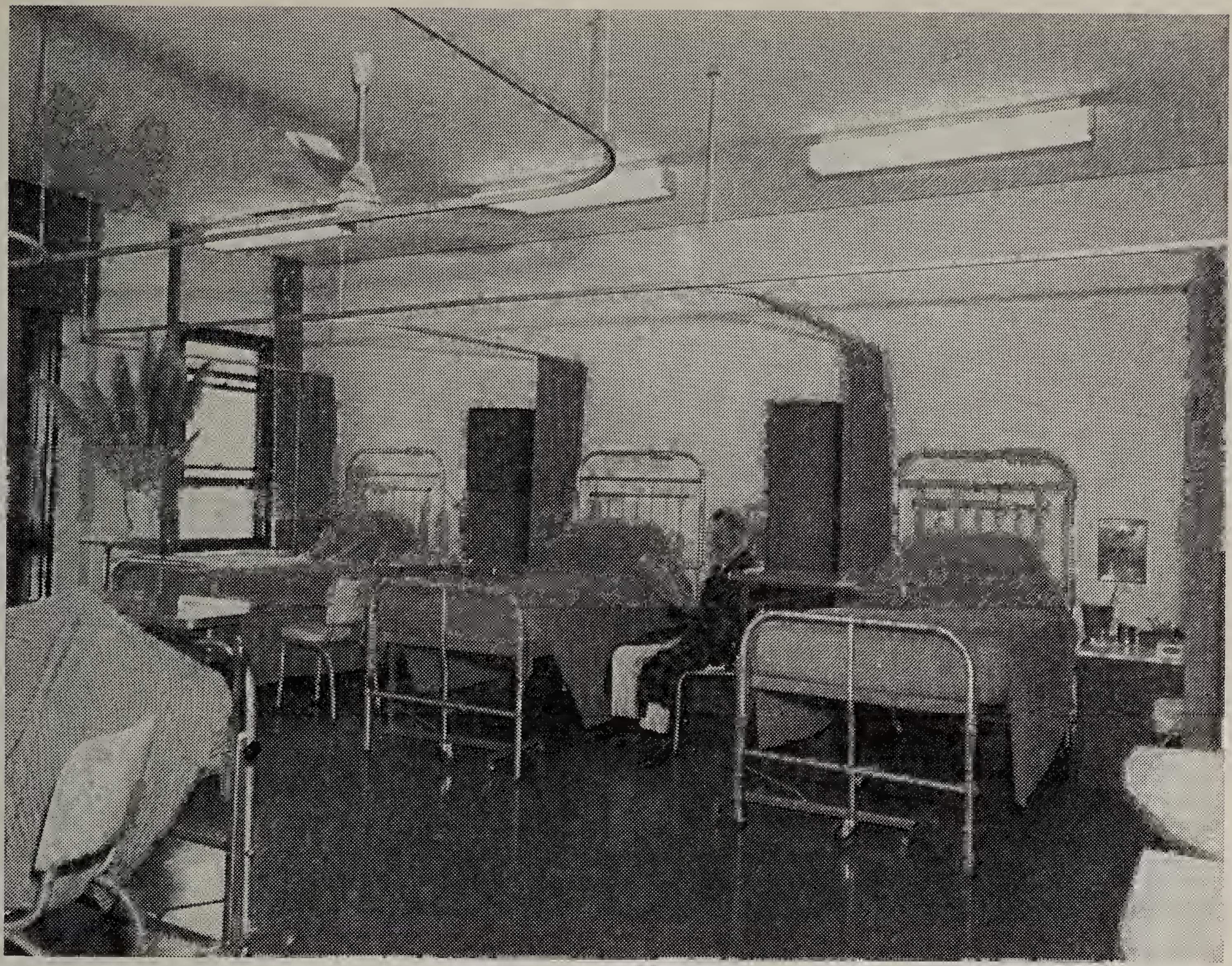
The nineteenth and twentieth sessions of the National Tuberculosis Advisory Council were held during the year. The Council plays an important role in co-ordinating the national campaign and although its recommendations are of an advisory nature, the resolutions passed receive wide acceptance by the States. The agenda for the nineteenth session included consideration of the important matter of compulsory X-ray examinations. As a result of its nineteenth and twentieth sessions the Council recommended that mass surveys should continue while public health benefits accrue, that surveys should be directed to areas of higher incidence and that the general frequency of surveys should decline as yields fall.

A comprehensive and authoritative statement on the treatment of tuberculosis, with particular reference to chemotherapy, was issued by the Council. The document has been widely circulated to physicians in Australia and overseas and has been reproduced in *The Medical Journal of Australia*. It has received excellent acceptance and has been in continual demand since the original distribution.



New buildings at the Randwick Chest Hospital, Sydney

An in-patient ward at the Randwick Chest Hospital, Sydney



Clinical conference

The third Australian Tuberculosis Clinical Conference was held in Brisbane from 28 April to 2 May 1969. Delegates attended from all States and the Australian Capital Territory. There were forty participants in the conference and twenty papers were presented during the twenty-one sessions that were held. The continued success of the conference as a means of stimulating the exchange of ideas between full-time medical officers in the State tuberculosis services is very encouraging.

New controls

New quarantine precautions were introduced in August 1968 requiring British full-fare migrants to produce evidence of freedom from tuberculosis before embarking for Australia. In the past British full-fare migrants did not have to produce such evidence. The new regulation subjects them to the same tuberculosis control requirements as applies to all other migrants.

Under a new section of the Quarantine Act which came into force on 1 August 1968, airline and shipping companies are required to see that all migrants produce a certificate declaring that they were free from tuberculosis before embarking for Australia. The new section of the Act also requires a migrant to undergo an X-ray examination if the necessary certificate is not produced on arrival. It is pleasing to note that the new procedures are operating smoothly.

Public Health

The past year was one of marked growth in the Public Health Branch and, in order to cope with the Department's increasing involvement in the public health field, the staff of the Branch was increased. Several new sections were created and the Branch now includes specialised units dealing with toxicology, social and preventive medicine, food standards administration, biochemistry and pesticides, and nursing.

Communicable diseases

As has been the case for many years, no quarantinable diseases such as smallpox or cholera, which could result in epidemic spread, were introduced during the year into Australia from overseas. At the same time several hundred cases of non-quarantinable infectious diseases such as measles and chickenpox were diagnosed during quarantine inspections and appropriate isolation procedures were taken. The need for strict quarantine checks continues and is made even greater by the increasing volume of air travel and the added risk of introduction of exotic diseases. Haemorrhagic fever is present in South East Asia and the control of the vector mosquito, *Aedes aegypti,* which exists in parts of Australia, is very important if we are to maintain our freedom from this disease. In addition, the presence of *Anopheles* mosquitoes in the tropical areas of Australia constitutes a risk of the introduction of malaria.

In the year ending 31 December 1968, 172 cases of malaria were diagnosed in travellers returning from endemic areas overseas. It is of the utmost importance to ensure that such people receive radical treatment for malaria before entering areas in Australia where the vector mosquitoes are found. In the Northern Territory this problem is of such importance that people entering Darwin by air from an overseas endemic area are provided with appropriate prophylactic treatment at the airport. Close liaison is maintained by Commonwealth and State health authorities with the School of Public Health and Tropical Medicine in Sydney to ensure the most efficient control of any cases which are found.

Leprosy in Australia is chiefly confined to the Northern Territory and the northern part of Western Australia. In the calander year ending 31 December 1968, sixty-eight cases were diagnosed. With modern therapy the time for which leprosy patients are isolated has been drastically reduced. The principle now being applied, once it has been firmly established that the patients are no longer infectious to others, is to allow them to return to their homes and continue treatment by regular out-patient attendances. This less prolonged period of isolation, combined with the improved results brought about by more modern drugs and reconstructive surgery as practiced in the Northern Territory, has encouraged those suffering from the disease to report in the early stages, further contributing to the success of treatment and lessening the risk of communicating the disease to others.

Infectious hepatitis remains a major problem and the difficulty in controlling the disease is compounded by our inability to isolate and culture the infecting organism. In Australia in the calender year 1968, 8,143 cases of hepatitis were notified. This compares with 11,316 cases in 1967, 8,595 in 1966, 6,675 in 1965 and a peak of 12,876 in 1961. These figures demonstrate the need for constant attention to high standards of hygiene.

Cases of crippling and death from poliomyelitis have virtually ceased in Australia since the dramatic fall in the number of cases following the introduction of Salk and later Sabin vaccine. The latter has virtually replaced the Salk vaccine in all major immunisation campaigns.

The effectiveness of Sabin oral poliomyelitis vaccine has been demonstrated by a survey carried out in association with the immunisation campaign in Canberra school children. Samples of blood showed that a high level of protection against all three types of polio virus had been achieved. However, surveys of children who had only received Salk vaccine showed that antibodies against types one and three were appreciably lower. Since these types have been responsible for most recent cases of poliomyelitis in Australia it has been strongly suggested that children previously immunised with Salk should now receive Sabin vaccine.

The A2 Hong Kong/68 influenza virus, first isolated in Hong Kong in July 1968, was found in patients in the Northern Territory, Sydney, Melbourne and Perth in August and September 1968. This virus was responsible for widespread epidemics of influenza in the United States of America and some parts of Europe during the latter part of 1968 and the early part of 1969. The Hong Kong strain was therefore included in a sub-unit influenza vaccine produced by the Commonwealth Serum Laboratories. The demand for the vaccine was so great that some five million doses had been distributed before the end of June 1969.

Serious complications sometimes follow measles and to combat this, live virus vaccines have recently been developed to confer protection against the disease. In August 1968 the Commonwealth Minister for Health announced that supplies of one of these vaccines would be made available free of charge to State and Territory health authorities for the immunisation of children in the one to nine year old group. The vaccine, which had been chosen after careful study by the National Health and Medical Research Council, was imported and initial immunisations were carried out among Canberra school children. However, at this stage information was received that in the United Kingdom serious complications had been associated with the vaccination of three children out of more than a million who had received injections of the vaccine. Although this incidence of complications was extremely small, the manufacturer decided to suspend use of the vaccine pending further study.

Gonorrhoea remains by far the most prevalent venereal disease in Australia. The annual incidence, as indicated by cases notified, is a little over 80 per 100,000 population. Whilst notifications are probably incomplete, the rate nevertheless appears to compare very favourably with those in some other highly developed countries, where incidence rates of several hundred cases per 100,000 population had been reported in recent years.

There has been a growing interest in rubella vaccines during the past year, a number of vaccines being under trial at the present time. In order that the Department might be fully informed on developments, an officer from the Public Health Branch attended an international symposium on rubella in Washington during February 1969.

Epidemiology and medical statistics

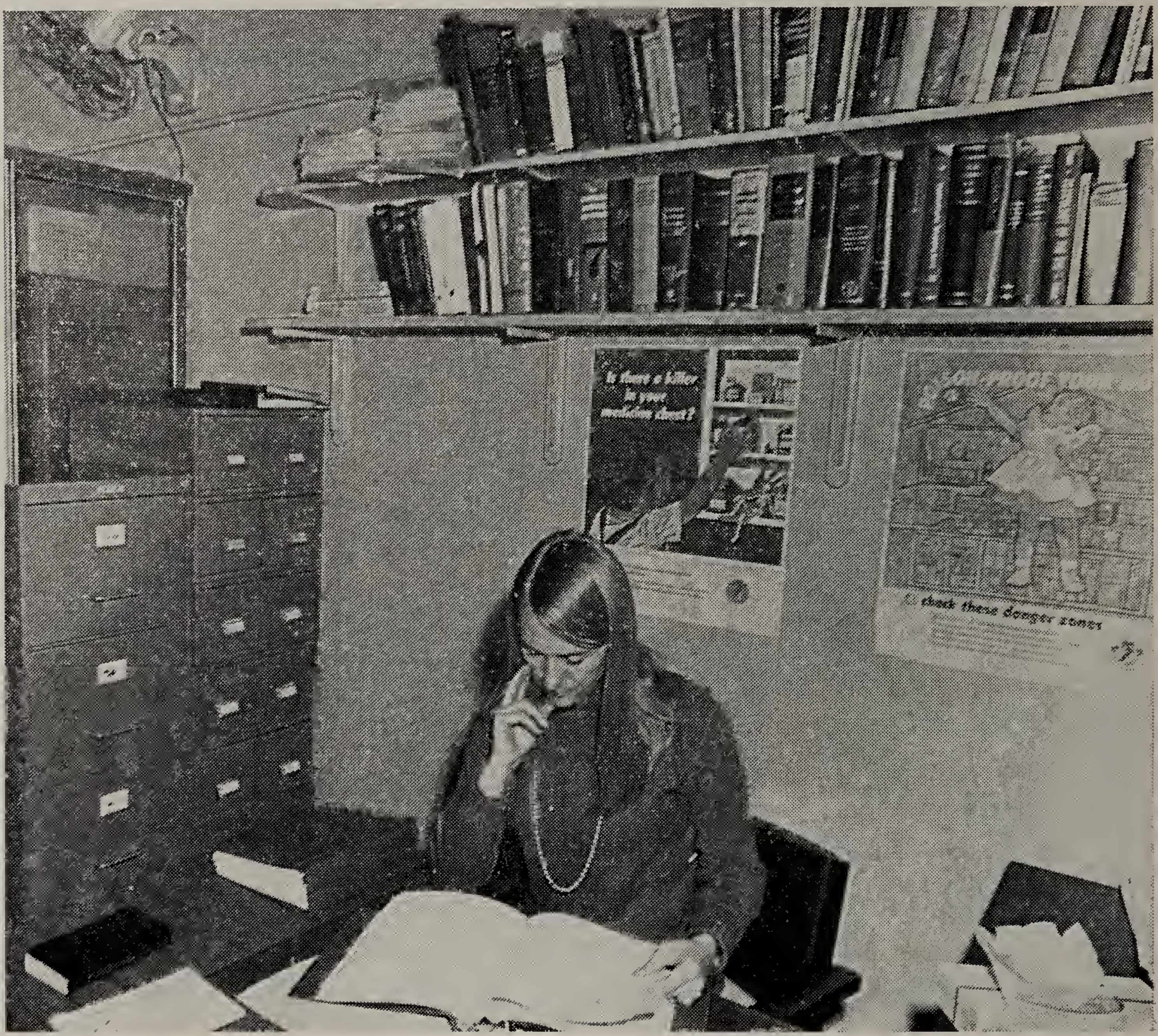
With the establishment of an Epidemiology and Medical Statistics unit within the Public Health Branch, it is anticipated that investigation in this field of medicine will form a useful addition to the work of the Department.

Officers of the section contributed substantially to the smoking attitudes survey presented to the National Health and Medical Research Council in May 1969. The report of the survey provides useful information on the smoking habit and its influence on children and adolescents. In addition to work on the survey a considerable amount of time was applied during the year to the study of investigations carried out in other countries on the dangers of smoking and of methods used to combat the hazards.

Early in 1969 a trial was commenced on Commonwealth employees in Canberra in order to study the degree of protection afforded by influenza vaccine. The willingness of these people to take part in such a trial is most commendable and it is hoped that co-operation in other health studies at a later date will be possible.

National poisons service

Encouraging progress was made during the year in the work of the Toxicology Section in updating the National Poisons Register and Manual. Over 200 new monographs for both the manual and register were distributed, and the issue of a revised alphabetical section of the manual was commenced. A new tape typing machine has been purchased by the Department to facilitate this work and allow for future revisions. An analysis of poison cases reported in 1967 was the subject of an issue of the Poisons Information Bulletin and was subsequently published in *The Australian Medical Journal.*


Is there a killer in your medicine chest?
check these danger zones

The Poisons Information Centre of the Royal Alexandra Hospital for Children, Sydney

Pesticides

The Toxicology Section has continued to work in liaison with the Department of Primary Industry and State departments in efforts to achieve uniform registration of pesticides throughout Australia. A representative from the section is a member of the Technical Committee on Agricultural Chemicals of the Standing Committee on Agriculture, which will consider all applications before registration of pesticides is approved by the States. This will help ensure that tolerances and poison scheduling are recommended by the National Health and Medical Research Council before registration is granted.

Food standards programme

During 1968-69 the Food Standards Committee of the National Health and Medical Research Council recommended seven standards and amendments to eleven existing standards for adoption by the States. These were approved by the National Health and Medical Research Council at its sixty-seventh and sixty-eighth sessions.

During the year senior officers of the Public Health Branch were included in the Australian delegations to the Joint FAO/WHO Food Standards Programme. The sessions attended included the Codex committees on food labelling, pesticide residues, foods for special dietary uses, general principles, food hygiene and the meeting of the Codex Alimentarius Commission, which was held in Geneva in March 1969. Approximately thirty Codex standards have reached the stage where they will be forwarded to governments for acceptance.

NURSING

A variety of courses for nurses from overseas countries under government sponsored schemes was arranged during the year by the Nursing Section. In addition to the usual formal basic nursing courses, post-graduate courses and *ad hoc* courses provided at various institutions and health departments, there is an increasing interest in courses in specialist areas such as coronary and intensive care.

During 1968-69 the Nursing Section arranged courses for twenty-six students under government sponsored schemes. This brought the total number of overseas nurses studying in Australia at 30 June 1969 to forty-four. Most of the students are recipients of Colombo Plan awards and, of the nurses currently undertaking courses in Australia, twelve are being assisted under this programme. The remaining nurses are grantees of awards under the Special Commonwealth African Assistance Plan (S.C.A.A.P.) and the Australian International Award Scheme.

The results achieved by the students are very pleasing and, over the years, it has been found that the great majority can return home having completed the course undertaken in the specified time. Last year twenty-four overseas nurses who had graduated from colleges of nursing under technical assistance programmes returned to their home countries. Four nurses, having completed basic nursing courses arranged for them in Australia, also returned home.

The Nursing Section also services, and provides Commonwealth representation on, the Nursing Committee of the National Health and Medical Research Council. This committee has been particularly concerned about the problems of recruitment and wastage of trained nurses.

Therapeutic Substances

Significant improvements in the reporting of adverse reactions to drugs were achieved in 1968-69. Following active efforts by the Therapeutic Substances Branch of the Department to improve the level of reporting of adverse reactions, there was an increase of some 84 per cent in the number of reactions reported during the year.

The Therapeutic Substances Branch co-ordinates Commonwealth activities in the control of therapeutic drugs. It is responsible for the examination of therapeutic substances imported into Australia or available on the Australian market to ensure conformity with the required standards of purity, potency, and safety and for detailed supervision over, and evaluation of, various imported products. The Branch also incorporates the Registry of Adverse Drug Reactions and provides the Secretariat of the Australian Drug Evaluation Committee and several other committees. Departmental activities in relation to narcotics and other drugs of dependence are also undertaken by the Branch.

Registry of Adverse Reactions

On the recommendation of the Australian Drug Evaluation Committee, the Registry of Adverse Reactions to Drugs was established in the Therapeutic Substances Branch in August 1964. Report forms are regularly distributed to the medical and dental professions and doctors and dentists are invited to report to the Committee any untoward effects encountered in the use of drugs.

The increasing support the drug surveillance scheme has attracted in recent years is illustrated by the rise in total notifications each year from doctors, dentists, the Armed Services and drug companies. Two hundred and twenty-eight cases were reported in 1964-65, 232 in 1965-66, 311 in 1966-67, 450 in 1967-68 and 817 in 1968-69.

This increased response reflects the effect of the feedback of information to the medical and dental professions in the form of the *Report of Adverse Drug Reactions,* the second edition of which was distributed during April 1969. It also reflects an increasing recognition of the work being done by the Australian Drug Evaluation Committee in this field. The increasing interest of the medical and dental professions in the work of the Committee is evidenced by the number of inquiries received from individual doctors and dentists.

The number of reports of adverse reactions received from each State during 1968-69 varies, in general, proportionately to the distribution of the Australian population (see table A).

Table A

State	Number of reports (Doctors and dentists only)	Percentage of total	Percentage of Australian population
New South Wales	294	37.7	36.3
Victoria	145	18.5	28.0
Queensland	108	13.9	14.3
South Australia	118	15.1	9.3
Western Australia	46	5.9	7.5
Tasmania	41	5.2	3.2
Australian Capital Territory	21	2.7	0.5
Northern Territory	8	1.0	0.9
Total	781	100.00	100.00

The majority of reports received during 1968-69 were forwarded by doctors and dentists in private practice (see table B), but a pilot study has recently been instituted whereby hospital discharge summaries of patients experiencing adverse drug reactions are routinely forwarded to the Registry. Ten major hospitals throughout Australia have agreed to participate in the project and it is envisaged that this scheme will ultimately be extended to include all major hospitals throughout the Commonwealth.

Table B

Total number reports received	817
Number reports doctors and dentists—private practice	596
Percentage total	73.55
Number reports doctors and dentists—hospitals	185
Percentage total	22.75
Number reports other sources (drug companies, armed services, etc)	36
Percentage total	3.7

The clinical details of adverse drug reactions reported to the Registry in the past year have been routinely forwarded to the World Health Organisation Pilot Research Project for International Drug Monitoring. Data from the ten countries participating in this project is processed by computer and, though still in its infancy, the information feedback from this scheme is proving to be extremely valuable.

Australian Drug Evaluation Committee

To 30 June 1969 the Australian Drug Evaluation Committee had made 240 resolutions relating to therapeutic substances. An increased number of resolutions was made in the last twelve months and this is indicative of the increased work being done by the Committee in the assessment of new drugs and reports of adverse reactions to drugs. Twenty-five of the sixty-two resolutions made in 1968-69 referred to applications for the general marketing of new therapeutic substances in Australia.

Following reports of adverse reactions and on the recommendation of the Committee, two warning letters were published in 1968-69 in the *Medical Journal of Australia* drawing the attention of the medical profession to possible hazards associated with specific groups of drugs. In addition, the committee recommended the withdrawal from the Australian market of a number of halogenated phenolic compounds for use in therapeutic substances and toilet preparations because of photo-sensitivity associated with their use. These were bithionol, 5-bromo-4′-chlorosalicylanilide, fenticlor and tetrachlorosalicylanilide.

In considering applications for the marketing of new therapeutic substances, the Committee has placed particular emphasis on the adequacy of prescribing information circulated by pharmaceutical companies because, in some cases, little published information is available to the medical profession when new products are first released. The product literature for certain groups of drugs already available on the Australian market is also under review.

With Australia's participation in the World Health Organisation Pilot Research Project for International Drug Monitoring, the close liaison established with drug control authorities in a number of overseas countries has been extended and reinforced and is of great assistance to the work of the Committee.

New therapeutic substances

The information required from manufacturers and importers to allow adequate assessment of the safety of new therapeutic substances is outlined in a circular published by the Department. This circular, *Form N.D.F.* 3, is distributed to drug manufacturers and importers and copies are available to interested bodies.

The data submitted is evaluated by medical and scientific officers of the Department and assessments are circulated to the members of the Australian Drug Evaluation Committee for consideration. Where indicated, full details are referred to the committee for advice.

Standard of products

A number of controlled therapeutic substances are subjected to examination in respect of packaging, labelling and conformity to standards on importation into Australia. To avoid undue delays to importers, the analyses are conducted in Department of Customs and Excise laboratories in the various States.

The following table indicates the number of samples assayed by the Customs laboratories in 1968-69. Examination of the other categories of therapeutic substances is conducted by the National Biological Standards Laboratory and details of these examinations are outlined in the section of this report relating to that laboratory:

	No. of samples	
State	*Passed*	*Failed*
New South Wales	132	5
Victoria	84	8
Queensland	—	—
South Australia	45	1
Western Australia	1	—
Tasmania	—	—

National Biological Standards Laboratory

The testing of drugs for potency and purity by the National Biological Standards Laboratory was maintained during the year and, as well, considerable progress was made in the preparation of Australian standards for therapeutic goods and towards uniform national control.

A significant achievement was the preparation, by Commonwealth and State health department officers, of a code of good manufacturing practice covering all aspects of pharmaceutical manufacture. This code is proposed as a basis for the licensing and inspection of pharmaceutical manufacturing establishments, and was fully discussed and modified with the assistance of representatives of the National Council of the Chemical and Pharmaceutical Industry.

The co-operation of industry has ensured that the code is a practical document capable of being uniformly applied throughout the Commonwealth. The power to license manufacturers is a State responsibility but it has been agreed that the Commonwealth Health Department will help co-ordinate action amongst the States.

Close co-operation between the States and the Commonwealth has also developed with regard to the recall of sub-standard drugs from the market. A procedure has been developed to ensure that such recalls are carried out in a speedy and efficient manner throughout the country.

In other areas also, good relations have been maintained with the pharmaceutical industry. Officers of the Laboratory have visited a number of pharmaceutical companies to discuss technical problems. In return, the Laboratory has been visited by representatives of the industry. It is the aim of the Laboratory to maintain a close liaison with industry on technical matters and to encourage manufacturers to co-operate in a joint effort to ensure that high standards of pharmaceutical manufacture are maintained.

Considerable progress was made during the year in the preparation of Australian standards for therapeutic goods. One area in which valuable work was done was in the field of radiation sterilisation of therapeutic goods—a technique which is gaining momentum and which is under world-wide scrutiny. Officers of the Laboratory are serving on a committee appointed to prepare a code of radiation sterilisation which will govern practice in this field.

The Laboratory has continued a fruitful association with those organisations whose activities overlap, in several areas, aspects of government control of therapeutic goods. These include the Standards Association of Australia (S.A.A.) and the National Association of Testing Authorities (N.A.T.A.). Laboratory officers serve on S.A.A. committees dealing with vegetable drugs, syringes, plastics, sterile containers and spectroscopy. The Laboratory is also represented on the N.A.T.A. Chemical Laboratory Registration Advisory Committee and provides officers to assist in the certification of chemical and biological laboratories.

Close liaison continued during the year with overseas national control laboratories, the World Health Organisation and the British Pharmacopoeia Commission.

During the year, a Colombo Plan Fellow from India joined the Laboratory for one year's training in the field of chemical and instrumental methods of analysis. Instruction was given in Australian methods of drug control and pharmaceutical sampling as well as antibiotic control, statistical methods and sterility testing. Arrangements were also made for the fellow to be attached to a pharmaceutical company to enable him to study industrial quality control and general pharmaceutical manufacture.

Two senior scientists attended overseas conferences during the year and these contacts with scientists in other laboratories and industry have proved of great benefit to the Laboratory. A WHO scholarship was granted to one officer of the Laboratory, enabling him to spend three months in overseas laboratories.

For some time, there has been a need in the Laboratory for the employment of more highly trained technical assistants. A proposal by the Public Service Board to determine a certificate qualification as a requisite to employment in positions of technical officer and above, has therefore been welcomed. Negotiations are proceeding with the Public Service Board, the Canberra Technical College, the New South Wales Department of Technical Education and the Department of Education and Science in an endeavour to have the Chemistry Research Technicians' Certificate Course made available at the Canberra Technical College.

Testing programmes

The Laboratory's testing programmes were maintained during 1968-69, despite an acute accommodation problem which affected the Pharmaceutical Chemistry Section, the section which examines the greatest number of samples. Previously, this section was housed in a building on the grounds of the Australian National University, but during 1968 it became necessary to vacate the building. Premises were obtained in Yallourn Street, Fyshwick, and converted to provide suitable laboratory facilities.

Pharmaceutical chemistry

The new accommodation for the pharmaceutical chemistry section became available in September 1968 and by early 1969 was functioning efficiently. During the first half of the year testing was restricted to goods recommended for inclusion in the pharmaceutical benefits list and goods tendered to government authorities. Early in 1969 routine sampling of goods generally available was resumed.

With the transfer of the surgical dressings unit to new quarters, it has been possible to provide the stringent environmental control necessary for this type of testing. Equipment previously ordered has arrived and the facilities now available are excellent. The unit has continued to examine cotton wool dressings and bandages purchased by the Repatriation and Army Departments. The testing showed that most of the imported products met B.P.C. standards but that a number of locally manufactured products were sub-standard. A draft standard for modern absorbent cotton wool has been prepared.

A sample of cortisone acetate tablets which met B.P. standards but which were not clinically effective was encountered during the year. A searching

A Colombo Plan Fellow from India working on antibiotics analysis at the National Biological Standards Laboratory, Canberra

investigation is being carried out and will be extended to a broad range of tablets whose active ingredients are poorly soluble. Special apparatus for measuring dissolution rates of tablets has been developed for this purpose.

During the year it became necessary to detect rapidly, stray containers of dilute acid in several hundred phials of water for injection. A simple and effective non-destructive electronic sorting method was devised. This worked so well that its potential as a routine monitoring device in factories is to be explored.

Antibiotic products

This Section, which has moved into more suitable premises and has recruited more staff, is now reaping the benefits in the form of more efficient operation. The Section has increased the volume of its testing and also its ability to undertake a wider range of activities.

The testing of antibiotic products in 1968-69 was directed largely towards goods available or proposed to be made available as pharmaceutical benefits. There are now 307 of these and it is possible to test all of them at least once a year and the most important products more frequently. There has also been an increased volume of testing of antibiotics provided to the various Commonwealth authorities and Territories.

A small analytical chemistry unit has been added to the laboratory to expedite the testing of antibiotics by chemical as well as biological methods. This unit will also provide increased facilities to investigate impurities in antibiotics and their stability and to characterise reference standard preparations of antibiotics. The sterility testing unit, which also provides a service for other sections, has been modified by the installation of a vertical laminar flow work station and more efficient general environmental control. This has more than doubled the capacity of the unit. The systematic examination of pre-sterilised disposable surgical equipment has continued.

Pharmacology testing

The number of drugs submitted for pre-clinical evaluation continues to increase and difficulty in recruiting staff has added to the task. During 1968-69, 45,000 pages of protocol material was submitted for evaluation compared with 22,000 pages the previous year. As the number of drug protocols increases, there is a corresponding increase in technical communications and clerical and technical tasks.

The number of routine safety tests performed by the Section was double that of the previous year. These tests are for pyrogens, undue toxicity and histamine-like substances and were carried out on behalf of other sections of the Laboratory. Work was also undertaken on behalf of the Australian Atomic Energy Commission to determine the suitability of processes and materials employed to ensure that certain radio-active pharmaceutical products are pyrogen free.

The third revision of the American Dental Association specification for toxicity tests on dental materials was summarised and critically reviewed for the Commonwealth Bureau of Dental Standards. In other work, studies on catecholamine release and uptake were continued.

Viral products

Vaccine control through testing and examination of protocols was extended during the year to include attenuated measles, smallpox and influenza vaccines. In addition, techniques for use in the control of the most recently developed vaccine for human use, rubella vaccine, are being established.

A total of twenty-one batches of vaccine involving ninety-one assays were tested during the year and thirteen sets of protocols involving thousands of pages were examined in detail. Eight polio virus strains isolated by diagnostic laboratories in three States were examined for genetic marker characteristics. They were not from cases of poliamyelitis. Sabin strain characteristics were found, as might be expected to occur during a vaccination campaign.

As measles virus vaccine is very labile, syringes intended for use in measles vaccination campaigns were tested for compatability with the vaccine to be used, and were found to be satisfactory.

A new infectious laryngotracheitis virus reference standard was prepared, replacing an earlier one considered unsuitable because of a genetic change in plaque character.

Research by the Section has been concentrated in two areas. The first is the development or improvement of methods for the determination of vaccine potency and includes methods for assaying the virus content of live vaccines and determining the antigenic potency of influenza sub-unit vaccine. The second is the study of the factors which are possible determinates of resistance to respiratory virus infections in immunised animals. Because of the present very limited understanding of the mechanism of immunity, the definition of what is desirable in vaccines and the selection of tests to be applied to them cannot be given a fully rational basis. Two model systems are being examined in these studies—influenza in mice and avian infectious laryngotracheitis.

Bacterial products

The major activity of the Bacterial Products Section was again the testing of veterinary vaccines, particularly clostridial vaccines. The range of tests has been extended to include vaccines designed to protect against blackleg, black disease and malignant oedema. Deficiencies in the quality of these products have again been reviewed and it is apparent that the improvement found in 1967-68 has not been sustained. Previously, failures of the component vaccinating against tetanus were the most frequent. It is now noteworthy that twelve of the nineteen failures recorded were due to inadequacy of the pulpy kidney component.

The work of the immunological chemistry unit is continuing. Purification of toxins necessary as standard reagents in assays has progressed. A radio immuno-assay for tetanus antibodies has been developed and the chemical mechanism of tetanus toxoiding is under investigation. The testing of swine erysipelas vaccine was attempted but equivocal results were obtained. The reasons for these findings are under investigation.

Endocrine products

Difficulty is still being experienced in recruiting a chief endocrinologist to take charge of the Endocrine Products Section but its work has nevertheless continued. Restricted animal facilities and increased demands by other sections for animals have decreased the number of bio-assays undertaken but this decrease was partly counterbalanced by an increased number of other analyses.

The biochemist temporarily in charge of the section was awarded a World Health Organisation fellowship which enabled him to spend three months investigating radio-immuno-assay techniques in overseas laboratories.

Commonwealth Health Laboratories

During the year the Health Laboratories experienced difficulties in maintaining an efficient pathology service in the face of increasing demands, inadequate accommodation in many areas and staff shortages at professional and technical levels.

Despite the acute staff shortages, the numbers of patients attending and tests performed at the various laboratories showed further increases over the figures for previous years.

Extensive discussions took place during the year between the Department and officers of the Public Service Board concerning laboratory establishment, recruitment and training problems. A proposal which deals with the professional and technical staffing requirements of the Health Laboratories Service is currently being investigated.

Training scheme

The training scheme for technical officers (medical laboratory), which was introduced in 1967-68, is continuing and offers a possible long-term solution to some of the staffing problems of the laboratories. The intake of trainee technical officers during 1968-69 increased the number in training to seventy. Additional full-time cadetships in biochemistry and medical

The health laboratory at Lismore, New South Wales, is one of 15 conducted by the Commonwealth Health Department laboratory technology were provided during the year, bringing the total number of cadets-in-training to twenty-five.

Visits to universities and institutes of technology were made during the year to counsel final-year science students on career opportunities in the Health Laboratory Service. It is hoped that this direct approach to students will benefit overall recruitment in the long term.

The difficulty of recruiting qualified pathologists has continued despite extensive advertising both in Australia and overseas. Consideration is being given to the possible development of a pathologist training scheme in Australia as a means to ease the problem.

An organisation and methods survey of Commonwealth Health Laboratories commenced during the year. The programme is comprehensive and includes investigations into such matters as laboratory accommodation, staffing, training, equipment, work methods and records systems. Preliminary investigations have been carried out at several laboratories and the project will continue next year. This work is of importance to the co-ordinated development of the laboratories service in the future.

Two medical officers were awarded Public Service scholarships for 1968-69 and are at present undertaking studies for the Diploma of Clinical Pathology in London. Two officers who successfully completed this course in 1968 have returned to duty as specialists in pathology.

New laboratory

The construction of a new laboratory at Tamworth commenced during the year and it is expected that the building will be ready for occupation early in 1970. The laboratory building, which is of open plan interior design, will have a floor area of 8,000 square feet.

Statistics of tests performed and the numbers of patients who attended the laboratories during the year are given in table 66 on page 136.

Commonwealth Acoustic Laboratories

The clinical and research activities of the Commonwealth Acoustic Laboratories continued to expand during 1968-69. The pensioner hearing aid scheme was extended to include all eligible pensioners and their dependants. Since the introduction of the scheme in April 1968 12,791 pensioners have undergone hearing tests and 11,631 have been issued with hearing aids. There has also been an increase in the number of children, repatriation and other cases attending the laboratories for hearing assessment and the fitting of hearing aids.

Further progress was made in research projects. Advice and assistance on acoustics and hearing conservation were given to various organisations during the year and staff members served on technical committees and presented papers to diverse groups.

The rapid increase in the staff of the laboratories has led to various administrative problems. One of the main problems is the need for additional suitable accommodation. This is accentuated by difficulties in installing research facilities such as anechoic and reverberation rooms in the office-type space that is generally available.

The recruitment and maintenance of staff also poses problems. The scarcity of suitable male graduates for recruitment to the positions of psychologist class one and the consequent appointment of a majority of female psychologists has resulted in a high turnover of staff. This has led to problems in arranging training courses and also to a need for a reasonable number of training positions, particularly in the psychological field.

Although it is difficult to recruit people with the necessary qualifications and abilities for the higher grades of research physicists and psychologists, it has been relatively easier to retain them. This is probably due to the greater scope for creativity and originality in their work.

SERVICES

New premises

Extensions to existing laboratories in Sydney and Brisbane were completed and a new laboratory was opened in Parramatta. The permanently staffed laboratory in Perth and the visiting laboratory in Canberra moved to new premises and visiting laboratories in Wollongong, Toowoomba, Cairns and Rockhampton were completed. Planning was carried out for new laboratory premises in Launceston and for a visiting laboratory in Tamworth. Work was commenced on new laboratory premises in Newcastle.

Acoustical advice and noise measurement

Noise measurements were undertaken at R.A.A.F. Headquarters, Williamtown, and for the Royal Australian Army at the Holsworthy Range, near Liverpool, Sydney. Visits were made to Commonwealth Department of Supply factories in Victoria and New South Wales to investigate the possible introduction of hearing conservation programmes.

Noise measurement and reduction investigations were carried out at the Automatic Mail Exchange of the Postmaster-General's Department and the Computer Centre of the Commonwealth Bureau of Census and Statistics. Discussions were held with members of the Australian Shipbuilding Board regarding acoustical aspects of the design of new launches for the Department of Customs and Excise.

Clinical audiology and psychology

The pensioner hearing aid service was extended during the year to include all eligible pensioners and staff members visited country areas to fit hearing aids to pensioners and their dependants living in areas far removed from the capital cities. In some cases pensioners were tested and fitted with aids in their own homes. Special training was provided for all new psychologists and assistants (audiometry) who were employed to assist with the increased case load.

Further work was done in the guidance of parents of deaf pre-school children. Film and discussion evenings for parents were held at the Parramatta and the Central Laboratory, Millers Point, Sydney. Two new positions of assistant pre-school officer were recently created to carry out work in this area.

Technical services

A record number of hearing aids was produced during the year. The average monthly number of aids serviced by the branch laboratories exceeded last year's figure of approximately 4,300 per month.

Equipment for testing hearing aids in the field was developed for use by staff in the branch laboratories and tests were made of a device for acoustical calibration of the laboratory's ear level hearing aid.

RESEARCH

Audiometry

Standardisation of 10-word isophonemic word lists has almost been completed. The clinical use of these lists will mean a considerable increase in the efficiency of speech hearing testing throughout the laboratories.

A clinical evoked response audiometer has been developed and is about to go into use in some branch laboratories. This audiometer will be useful in testing the hearing of those who are unable to carry out conventional audiometry, particularly very young children.

Hearing and deafness

New data has been built up on the recovery from temporary threshold shift produced by powerful hearing aids. This information will be used in determining adequate recovery times to be allowed after use of powerful hearing aids, so that permanent, and not temporarily shifted, thresholds are obtained in routine audiometry.

Procedures for calculating the loudness of impulse noise are being adapted for machine computerisation. This is part of an investigation into methods of calculating the loudness of such impulsive sounds as noise due to explosions and noise generated by supersonic aircraft.

Hearing aids

Further investigations were made of suitable types of hearing aids. This included work on new circuits for the laboratory's body-worn hearing aids, as some of the components previously used are no longer available. Two new designs have been perfected, one incorporating integrated circuits and the other low noise silicon transistors.

Medical ultrasonics

Clinical trials of all the ultrasonic two dimensional echoscopes under development for medical diagnosis were continued. The abdominal echoscope installed at the Royal Hospital for Women, Sydney, has reached a high stage of development and is producing results that are of value both for research and for indications given for suitable management of the patient. It is possible to ascertain stages of pregnancy and also to investigate unusual features of the baby's position or mother's anatomy. Computer analysis of the results is proceeding to establish accuracy and reliability levels for the technique.

The eye echoscope at the Royal Prince Alfred Hospital, Sydney, is used regularly on patients with various conditions including retinal detachment, proptosis, cataract and tumour and criteria for diagnosis of the various conditions are being established. The breast echoscope at the Royal North Shore Hospital, Sydney, has been used mainly on normal patients to establish the range of variation of the normal echogram before diagnosis of pathological conditions can be attempted.

Trials of the C.A.L. echo-encephaloscope at the Royal Newcastle Hospital are continuing. It has been shown that the instrument is superior to many commercial units as far as screening applications are concerned. The heart motion echoscope in use at Prince Henry Hospital, Sydney, for assessing the condition of the mitral valve is of increasing usefulness as the techniques of heart surgery are refined. A simple technique for the diagnosis of pulmonary embolism is being investigated at the Royal North Shore Hospital.

Research is continuing in the clinical assessment of the round window and semicircular canal approaches for the ultrasonic irradiation of the inner ear in the treatment of Meniere's Disease. There is some variation in the action of the two methods which is as yet unexplained. In addition to the clinical approach, work has commenced on a series of tests using sheep as experimental animals.

Basic research on the action of ultrasound on biological tissue is continuing. In collaboration with the Department of Pathology, University of N.S.W., a comparison is being made between ultrasonic, chemical, thermal and mechanical damage in the production of inflammatory lesions. The action of ultrasound on chromosomes in the blood of wallaby and man is being investigated in co-operation with the Division of Plant Industry, C.S.I.R.O.

Noise investigations

Further noise investigations were made for the armed services. Work for the Navy and Army, which amongst other things included the efficiency of communications equipment in noise, was completed and a report was prepared. An evaluation was also made of various types of ear protective devices.

A submission was prepared and technical assistance provided for the House of Representatives Select Committee on Aircraft Noise, which was appointed to inquire into and report on various aspects of aircraft noise.

Standards

Staff members took an active part in work connected with Australian standards during the year. Three representatives of the laboratories attended

An officer of the Commonwealth Acoustic Laboratories, Sydney, measures and records the noise level of a Navy Skylark jet fighter

the inaugural meeting of the Acoustics Standards Committee of the Standards Association of Australia held in Melbourne in August 1968. Previously, the association's work on acoustics had been carried out by a group of subcommittees working under a steering committee. The Director of C.A.L. is a member of the executive committee and C.A.L. is also represented on four of the seven technical committees that have been formed to undertake the standards projects in the broad fields of acoustics.

Conferences

Staff members attended and presented papers at various conferences throughout the year. The Director represented C.A.L. at the Sixth International Congress on Acoustics held in Tokyo in August 1968. Held triennially, this congress covers the physical, physiological and psychological aspects of acoustics and is attended by most of the leading international experts in this field.

Commonwealth X-Ray and Radium Laboratory

During the year the Commonwealth X-Ray and Radium Laboratory continued to provide advisory services in the physical aspects of medical radiology, to obtain and distribute all radioisotopes used in Australia for diagnostic investigation, or treatment, of patients and to maintain its surveillance of levels of radioactivity in the environment.

The functions of the Laboratory have been extended to include the provision of advice on the hazards to man associated with the use of masers (microwave amplification by stimulated emission of radiation), lasers (light amplification by stimulated emission of radiation) and microwave radiation. The Laboratory is also actively engaged in developing national standards of ionising radiations and of radioactivity.

Radiation dosimetry

The Laboratory maintained its routine services relating to the measurement of radiation output and associated characteristics of X-ray equipment used for radiation therapy in hospitals and in private medical practices. Such measurements are essential if accurate doses of X-rays are to be delivered during treatment.

The range of dosimetry possible at the Laboratory has been extended by the installation of a cobalt-60 unit. This unit provides a source of gamma rays of energy and will enable clinical dosemeters to be calibrated, and other investigations to be undertaken, using radiation of this energy.

Diagnostic radiology

Assistance to government instrumentalities, hospitals and universities during the year included technical advice in the planning of X-ray departments and in the specification and purchase of equipment. Some assistance was also given in projects requiring special radiographic techniques.

Protection against ionising radiations

The legislative control in Australia of the use of ionising radiations from irradiating apparatus and radioactive substances is mainly the responsibility of the States. The Laboratory co-operates with State authorities in this work but maintains its own technical advisory service. Technical assistance given by the Laboratory ranges from the design of X-ray installations and radioisotopes laboratories to the monitoring of radiation levels and the assessment of proposed safety procedures. These services are available to all who work with ionising radiations. During 1968-69 assistance was given to government departments on the safe transport, storage and disposal of radioactive materials.

Investigations have been made into the production, as an unwanted and possibly hazardous by-product, of X-rays in radar installations and in equipment used in television, particularly in colour television.

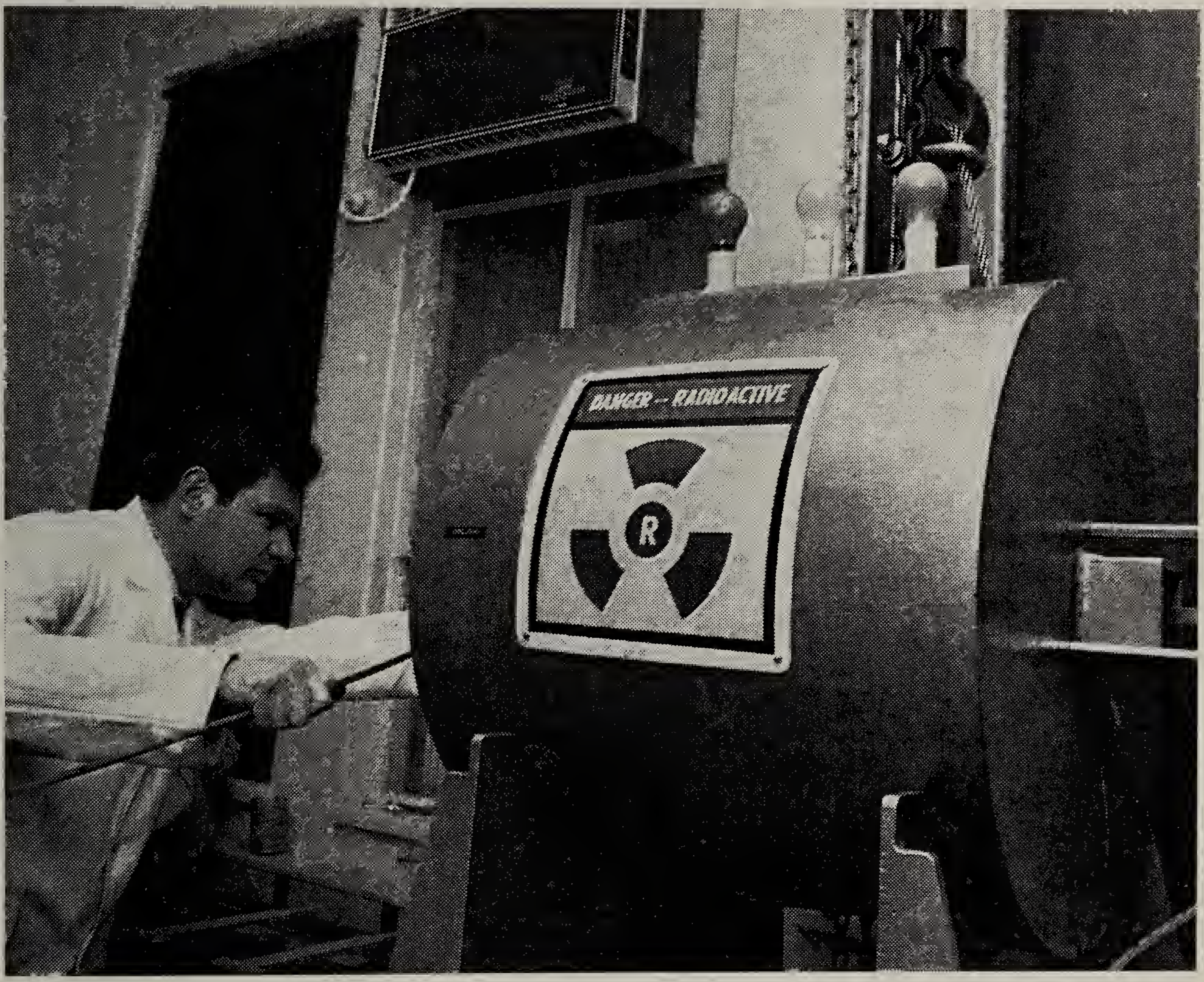
Film-badge service

In this service film-badges are issued to people working with ionising radiations to permit assessment of the doses of radiation received in their work. In 1968-69, 81,682 films were assessed and reported on. The number of centres registered with the service is 1,293. The demand for the film-badge service has become so great that automatic techniques, including the use of an anologue computer, are necessary to cope with the work load.

Commonwealth radium and radon

The care and maintenance of the Commonwealth stock of radium has continued. This radium is issued on loan to approved hospitals and research centres.

The radon service to approved hospitals and private practitioners in Australia and New Zealand has also continued. The total activity of radon issued by the Laboratory in 1968-69 was 24,941 millicuries. All radon for medical purposes is issued in gold tubing which is constructed in the Laboratory as required.



Setting up a high activity cobalt-60 source, contained in a massive protective shield, for calibration of clinical dosemeters at the Commonwealth X-Ray and Radium Laboratory, Melbourne

Radioisotopes

The Laboratory acts as the central procurement agency for purchasing and distributing all radioisotopes used in Australia for medical diagnosis or treatment. During the year 2,482 shipments of radioisotopes were procured by the Laboratory for medical use. Of these 1,946 were obtained from the Australian Atomic Energy Commission. The remainder of the shipments were from overseas sources which included Belgium, France, Holland, India, Israel, Italy, Japan, U.K., U.S.A., U.S.S.R. and West Germany. The shipments included 49 different radioisotopes in many different forms.

A total of 86,944 individual issues of radioisotopes was made during 1968-69. These issues are made available without charge to all classes of patients through the National Welfare Fund. The increase in expenditure from the National Welfare Fund, for radioisotopes for medical purposes is shown in table 73 on page 139. The demand for radioisotopes of short life, some of which must be extracted from special 'generators', is increasing steadily. These isotopes are used for important diagnostic tests on patients.

The Laboratory will shortly be in a position to produce and distribute its own radioisotope reference standards.

Radiochemistry and low-level measurements

The 'background radiation' which is always present in the environment provides an important natural standard of reference when assessing the possible effects of additional exposure of the population to radiation and the Laboratory has continued its programme of monitoring the environment for radioactive materials. The atmospheric testing of nuclear weapons increases the concentration of radioactive materials in the environment, and when France undertook the testing of nuclear weapons in Polynesia in 1966, 1967 and 1968, the Laboratory extended its monitoring programme correspondingly. The results of the measurements made are passed to the Atomic Weapons Test Safety Committee and, through it, to the National Radiation Advisory Committee.

When comprehensive data have been collected and assessed the results of the measurements are reported in the scientific literature. The efficiency of the methods used is kept under review. The complex calculations required are made by a computer, the necessary programming of data being done by the staff of the Laboratory. During 1968-69 a total of 8,622 samples was processed.

A whole-body monitor, which with its heavily-shielded room was designed and constructed in the Laboratory, is nearing completion. It will be used primarily for the detection and measurement of traces of radioactive materials in the human body.

In collaboration with the Radioisotopes Section of the Laboratory, the Radiochemical Section is developing methods of assessing the radiochemical purity of isotopes dispensed in the Laboratory for medical use.

National Standards

Under the Weights and Measures (National Standards) Act and Regulations the Laboratory is required to establish and maintain standards for the measurement of X-rays and of radioisotopes. One official Commonwealth standard (for the measurement of X-rays) has been established and other standards are being prepared.

Commonwealth Bureau of Dental Standards

There have been significant dental developments in metallic and mineral materials recently but the more spectacular advances have been made in the polymer field. Such developments have led to new types of restorative, cementing, denture and impression materials. The Bureau of Dental Standards has been engaged in the investigation and testing of such materials, often leading to modifications of the products concerned so that they meet more completely the exacting demands of laboratory and clinical requirements.

Dental resins

Throughout the world, intensive research is still being carried out in an attempt to develop restorative and cementing materials that exhibit true adhesion to the moist enamel and dentine of the walls of the cavity prepared in the tooth or, in the case of orthodontic appliances, adhesion to the tooth itself. So far, an effective adhesive material seems to have eluded the research workers, but efforts towards this end have resulted in various products of distinct dental interest. One of these is a restorative material called a composite resin because it consists of a high proportion of a treated mineral 'filler' bound by a complex synthetic resin capable of polymerising at mouth temperature. The composite filling materials can provide aesthetic and more permanent restorations than do the inadequate silicate or 'porcelain' cements which have been used for decades. Several dental composite resins are now available commercially and these are being assessed at the Bureau.

For cementing and lining purposes, a polymer based on a polyacrylic acid has been developed in Britain. This type of material, known as a polycarboxylate cement, shows promising results for cementing or luting inlays, crowns and bridges and even the possibility of fixing orthodontic brackets direct to the teeth. Two such products have been or are being studied for introduction to the Australian dental profession.

In the field of prosthetic dentistry, advances in synthetic resin materials have resulted in a new elastic impression material based on a polyether resin and also various resilient or soft linings for artificial dentures. The latter are of advantage with some patients who have difficulty in tolerating the hard acrylic resin now almost universally used in complete dentures.

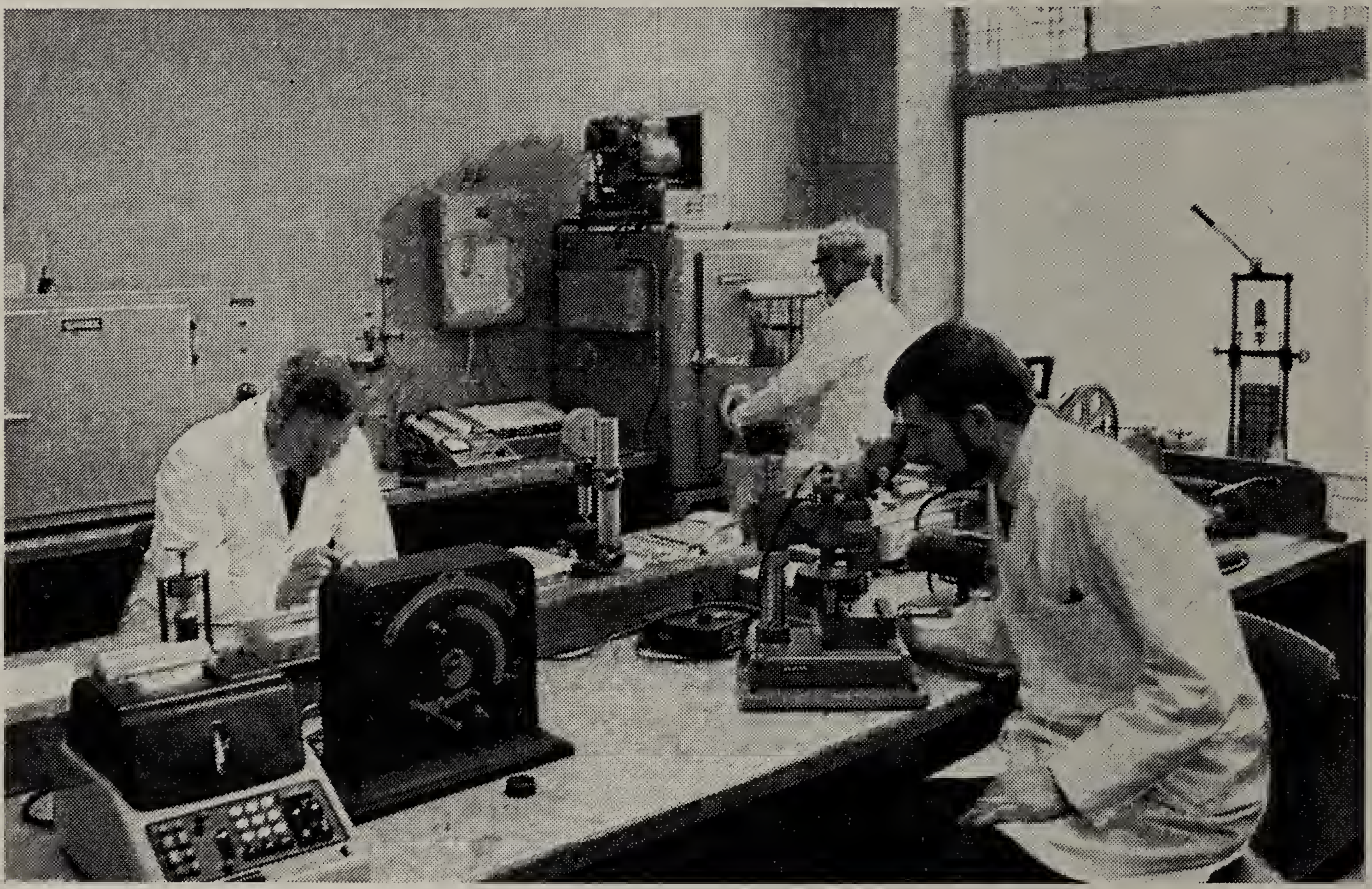
The Bureau is actively co-operating in a development of local and international standard specifications for some of these materials through the Standards Association of Australia, the International Organisation for Standardisation and the Federation Dentaire Internationale. In order to investigate these new materials further and to lecture on Australian work on them, one of the Bureau's staff visited Europe and America during the year.

Investigation and standardisation programme

Other work at the Bureau during the year has involved investigation of rubber elastics used in orthodontics, materials for duplicating models or casts, cold-polymerising denture resins, rubber dam, and absorption spectrophotometric analyses of a range of dental materials. Some of this work has arisen because of new committees set up through the Standards Association of Australia for orthodontic materials, for endodontic materials and, more recently, for toothbrushes.

At the request of the Standards Association Sub-committee on Orthodontic Materials, surveys have been conducted on the quality of orthodontic elastics used for the movement of teeth, of orthodontic cements used for attaching metal bands to teeth and of the matrix bands themselves. The Sub-committee on Endodontic Materials has asked for work and surveys on rubber dam used for maintaining a dry working field in the mouth, on root canal instruments, on points for sealing root canals, and on cements for this purpose. The Sub-committee on Toothbrushes has been formed as a result of representations to the National Health and Medical Research Council. It will endeavour to draw up acceptable standards of design and construction of toothbrushes. The Bureau is undertaking the preparation of the preliminary draft for discussion.

Other projects relating to new standards or the revision of existing ones concern elastomeric impression materials, denture repair resins, amalgam alloy, and local anaesthetic solutions.



Physical testing of filling and cementing materials at the Commonwealth Bureau of Dental Standards, Melbourne

Testing programme

There was an increase in 1968-69 in the number of products tested for local and overseas manufacturers and organisations. Of the 213 samples tested, 29 concerned mineral products including plasters and cements, 59 waxes and impression materials, 22 synthetic resins, 62 metals and alloys and 41 therapeutic materials and instruments. Some of the testing was concerned with the development of the local manufacture of dental products such as impression materials made from seaweed harvested from Australian waters, impression materials based on a synthetic rubber, local anaesthetic solutions and prophylactic pastes.

Various check tests on samples of 'certified dental products' obtained at random from the shelves of retail houses were conducted to ensure that the specified quality of these goods is being maintained. Where substantial discrepancies were found the matter was referred by the Dental Association to the manufacturer and this led to further testing and consultations on the part of the Bureau.

Lectures and exhibits

Staff members of the Bureau during the year gave numerous lectures and prepared exhibits on the proper selection and use of dental materials and instruments. Lectures were given in Auckland to the New Zealand Dental Association, in London at the inaugural meeting of the British Society for Restorative Dentistry and to the Metropolitan Branch of the British Dental Association, and in Frankfurt and in Los Angeles to groups of dentists. An exhibit was prepared for the fourth biennial conference of the New Zealand Dental Association. During the visit to New Zealand advice was given in regard to standards for dental materials and accreditation of products.

In Australia, lectures were given in association with the Convocation of Victoria and Tasmanian Fellows of the Australian College of Dental Surgeons in Melbourne, the eighth N.S.W. Dental Convention at Tamworth, the Western Australian Branch of the Dental Association, the Perth Dental Discussion Group, the Dental Study Group of Western Australia, the Dental Study Club of Victoria, the Fourth Australian Orthodontic Congress in Adelaide, the Queensland Dental Forum in Nambour, the Australian Division of the International Association for Dental Research inaugural meeting in Adelaide and to groups of dental auxiliary personnel.

School of Public Health and Tropical Medicine

The School of Public Health and Tropical Medicine had an eventful and, on the whole, satisfying and successful year. The steady growth of the School, both in the numbers of its staff and the scope of its activities, continued, but in December it suffered a great loss in the retirement of Emeritus Professor Sir Edward Ford from the directorship, a position in which he had served with great distinction for more than twenty years.

The School is conducted by the Commonwealth Department of Health in association with the University of Sydney and its work comprises teaching, research and consultation in the fields of public health, preventive and social medicine and tropical medicine and hygiene.

TEACHING

A wide range of teaching was undertaken both within and without the university at a variety of levels of instruction. At the postgraduate level full-time courses were provided for the Diploma of Public Health and the Diploma of Tropical Medicine and Hygiene and contributions were made to the university diploma courses in public health dentistry, clinical pathology, dermatological medicine and radiodiagnosis and radiotherapeutics. A full-time course of three weeks' duration in occupational health, given as part of the Diploma of Public Health course, was also made available to medical graduates. Other postgraduate teaching included contributions to the courses for the degrees of master of building science at the University of Sydney, and master of technology in public health science at the University of New South Wales.

At the undergraduate level substantial contributions were made to the teaching of students in medicine, architecture, nutrition and dietetics. The long established annual lay course in tropical medicine, intended for nurses, missionaries and others working in the tropics, was continued and was well attended.

Extra-mural courses were provided for the Australian School of Pacific Administration, the University of New South Wales and the New South Wales College of Nursing and a number of *ad hoc* courses and occasional lectures were provided for personnel of Commonwealth departments, for the Armed Forces and at the request of various institutions.

RESEARCH

Biochemistry

The Biochemistry Section was largely occupied during the year with its work on the amino-acids in blood and urine. Work commenced during the year included a study of the effect of under-nutrition on the plasma amino-acids and the range of the amino-acid composition of blood and urine. Preparations were also begun for a study of the protein and amino-acid metabolism in leprosy. Biochemical work on leprosy has, in the past, largely been confined to the elucidation of the hypercupraemia which occurs in that disease. It is now intended to investigate the nutritional background, amino-acid excretion patterns and hepatic function in leprosy patients, especially those with hypercupraemia. In order to obtain sufficient material for examination a visit to New Guinea is planned for the near future.

Entomology

A revision of the *Australasian Coratopogonidae* has involved the sorting and identification of some thousands of specimens and segregating selected genera for taxonomic study. So far this has resulted in the submission of four papers for publication embodying the revision of four genera and the description of one new genus and eight new species.

An investigation was begun to determine the prevalence of the house-dust mite in Australian houses. The house dust mite (*Dermatophagoides*) is known to be the cause of respiratory allergies and may occasionally be responsible also for cutaneous allergies. In the investigation, vacuum-cleaner contents were examined from seven homes in Sydney. All were positive for *Dermatophagoides*. In one case all rooms were tested separately and all were positive. Even the dust on the tops of doors, in light fittings and in a motor car were positive. One of the homes was a new home-unit which had been occupied for only ten months. Taking into account the wide dispersion of the homes examined, the house-dust mite must be considered to be ubiquitous in Sydney.

The colonisation of *Anopheles annulipes* continued during the year, the laboratory colony now being in its twentieth generation. A disease affecting the larvae of this mosquito has been investigated histologically.

Environmental health

Work on adaptation to both heat and cold was continued during the year. The studies of adaptation to heat have been concerned largely with the determination of the composition of sweat in the Australian population. This is proving a long task but it should provide better evidence than exists at present on the salt requirements of men working in the heat. At the same time the effect of exposure to heat on the electrocardiogram is being examined.

In the course of a series of experiments performed for other purposes it was observed that subjects about to be exposed for the first time in the climatic chamber uniformly exhibited a small rise in body temperature. This was identified as an example of the well-known phenomenon of emotional hyperthermia. Furthermore, it was observed that this rise in body temperature persisted throughout the first experiment, so that the experimental readings uniformly exceeded those obtained on a second occasion when the emotional stimulus was absent. This observation is of considerable theoretical interest, as it indicates that the rise in body temperature due to apprehension closely resembles in nature that which occurs in fever resulting from a bacterial or other infection in which the setting of the body thermostat is raised and the body then regulates its temperature about this new level.

Work on acclimatisation to cold, in association with the Australian National Antarctic Research Expeditions, has been substantial. The investigation begun in October 1967 of finger temperatures and the amount of pain suffered on immersion in ice-water by subjects at Mawson, Macquarie Island and Sydney has been completed and the results are being analysed. One investigation of the urinary excretion of adrenal hormones and electrolytes during long-term exposure to intense cold was completed and another designed to extend the original observation was begun.

Industrial health

A number of occupational health investigations yielded reassuringly negative results. A survey to determine whether the inhalation of printing ink vapour and paper dust given off by high-speed rotary printing machines had any injurious effects on the operators showed that the effects, if any, were negligible. A protracted study of the effect of using fork-lift trucks and mechanical shovels in the holds of ships revealed that in no case did the toxic components of the exhaust gases approach concentrations injurious to the workers exposed to them. An investigation of the effect of shift work on computer operators showed no adverse effects other than the customary physiological and social adaptation that must accompany all shift work.

Parasitology

A survey of alimentary parasitism was carried out in conjunction with the Fiji School of Medicine in July 1968, when 551 specimens were examined from Fijian villages in the Rewa area, near Suva. The results indicated that the prevalence of alimentary parasitism was of a higher order than previously realised.

In December 1934 the late Dr G. A. M. Heydon and Mr A. J. Bearup investigated alimentary parasitism in the Moge people in the Western Highlands of New Guinea. At that time the Moge people had had practically no contact with Europeans or natives from other areas. In February 1969, a team from the Parasitology Section visited the same area and, among other investigations, repeated the work of Heydon and Bearup. The results are still being assessed but it is anticipated that they will provide an interesting commentary on the change in the way of life of the Moge people in the past thirty-five years.

A malaria blood-film survey was carried out in the Torres Strait Islands of Sue, Yam, Coconut, Yorke, Stephen, Murray, Darnley, Banks, Badu, Mabuaig, Saibai, Dauan, and Boigu between September and October 1968, by the late Miss Barbara Dew. A total of 1,560 blood films were collected for examination for malaria parasites, of which approximately 650 have now been read. All results to date have been negative. An examination of malaria blood films collected from Aboriginals in the Cape York area in January-February of 1968 was completed during the year. In all, a total of 2,714 blood films were examined from this area with negative results.

Preventive and social medicine

The long-term study of leprosy in Karimui—conducted in association with the Public Health Department, Territory of Papua and New Guinea—continued during the year and has attracted international attention. Two papers were presented at the ninth International Leprosy Congress in London in September 1968 on the prophylactic effect of BCG vaccination and on the natural history of the untreated disease.

Work on endemic goitre in Tasmania was carried a stage further during the year. A follow-up survey was made in March 1969 of 8,000 school-age children to determine the prophylactic effect, over the past two and a half years, of the addition of potassium iodate to bread.

Included among new work undertaken is a continuing study of the epidemiology of gastric ulcer with emphasis on social and environmental factors which may be important in its causation. The project includes a case control in-patient study of persons with gastric and duodenal ulcer at the Royal Prince Alfred Hospital, a survey of the prevalence and coincidence of ulcer, aspirin ingestion, smoking and family history in working populations in Sydney and Melbourne, and a survey of the prevalence of aspirin ingestion and ulcer amongst women in Sydney. A retrospective study of 450 patients with ulcerative colitis treated at the Royal Prince Alfred Hospital over a seventeen-year period is also in progress.

Radiation biology

Work in radiation biology has been mainly devoted to two topics—dose-response relationship and murine leukaemia.

In accidental exposure to ionizing radiation the dose received is usually unknown. In order that this may be determined so that appropriate medical care may be instituted, an accurate biological means of measuring the dose received is needed. The present methods available—blood counts and the measurement of various breakdown products of tissue cells brought about by radiation—have not proved reliable. In an attempt to find a more reliable measure, a base line of chromosomal variation has been established for normal individuals and an increase above this level has been sought in a group of polycythaemic patients treated with radio-phosphorus. It was found that there was a significant correlation between the dose administered and the proportion of cells containing an altered number of chromosomes. It is hoped that this observation may lead to the development of a more satisfactory biological measure of the radiation dose received.

Recent work on radiation-induced leukaemia in mice has shown that all mice exposed to the laboratory's standard leukaemogenic schedule of four fractions of 200 rad whole-body gamma radiation had thymomas, whether or not peripheral lymphoid tissue, liver, or spleen was involved. In all but one of sixteen primary thymomas examined cytogenetically, there was extensive variation from the normal mouse chromosome number. With this one possible exception, the chromosome aberrations within the thymus and the distribution of distinctive clones within other tissues was consistent with an origin for the radiation-induced neoplasm within the thymus.

Tropical medicine and hygiene

Research work in the Tropical Medicine and Hygiene Section of the School has been largely concerned with the health of Australian Aboriginals. The social and child health studies of 'coast town' Aboriginals, begun in 1966, have continued. An important innovation was the appointment of a triple-certificated nurse as a member of the research team. She will also act as a public health nurse for the community and, in this way, will not only be of positive value to the community but will serve to strengthen the existing good relations between the community and the research team.

Attention has also been given to the effect of urbanisation on Aboriginals and the socio-economic and health status of the Aboriginal community in Sydney is being studied with particular attention to the children.

One of the most perplexing of the Aboriginal health problems is the high incidence of serological evidence of treponemal infection. Until the period immediately following World War Two, two forms of endemic treponematosis had been recorded by explorers, settlers, and medical writers in North and Central Australia—yaws in the hot humid north and endemic (non-venereal) syphilis in the drier centre.

Highly specific serological tests permit accurate determination of the prevalence of past or present treponemal disease in a population, but do not differentiate between yaws, endemic syphilis and venereal syphilis. Such differentiation is only possible on clinical and epidemiological grounds.

Since clinical treponemal disease in the Aboriginal population is comparatively rare, it is important to establish the serological prevalence of infection in different age groups and different localities, in order to assess the relative prevalence of the disappearing endemic treponematoses and of introduced venereal syphilis.

Accordingly, blood specimens from a randomly selected representative sample of 1,570 Aboriginals from nineteen communities throughout the Northern Territory were examined. Twenty-three per cent of the population tested showed serological evidence of past or present treponemal infection but the rate was much higher in adults (36 per cent) than in children (six per cent). Only 5 per cent of sera gave reactions suggestive of recent or current activity. The majority of these reactions came from sera from the hot, humid northern areas.

CONSULTATIVE AND ADVISORY SERVICES

Consultative services at the international level and to various Commonwealth and State departments, health authorities and institutions, provided by the School in its special subjects, were maintained. These constitute a very substantial proportion of the duties of the senior members of the staff.

Members of staff served on a wide range of official bodies devoted to health or science and as honorary consultants to hospitals and other institutions.

Institute of Child Health

The Institute of Child Health has continued its programme of research, teaching and advisory activities. The Institute, located partly in the School of Public Health and Tropical Medicine, at the University of Sydney, and partly at the Royal Alexandra Hospital for Children, co-operates in both undergraduate and post-graduate teaching, conducts research in a variety of fields concerned with child health and provides advisory services to Commonwealth and other authorities.

The Institute's new headquarters building, opened in November 1967, became fully functional during the year. The equipping of the gastroenterology laboratory was completed and the metabolic laboratory was brought into operation.

Advisory services

The Director of the Institute has continued as Chairman of the Child Welfare Advisory Council of New South Wales. This is a statutory body whose advice is sought by, and which advises, the State Government on matters pertaining to child welfare. The Council's report on hooliganism has been received by the relevant authorities in New South Wales and discussions are proceeding in consultation with the Youth Welfare Advisory Council. So that optimum needs for the requirements of children and youths will be met, a further assessment of their needs in new housing areas is currently being prepared.

Consultations were held during the year with a number of hospital authorities on the planning of accommodation for children. Advice on paediatrics was given to the planners of the Woden Valley Hospital, Canberra. The detailed plans for the paediatric floor of this hospital are now completed.

The Director of the Institute continued as Secretary-General of the International Paediatric Association. The International Paediatric Association is the professional body to which paediatricians throughout most of the world belong through their national paediatric societies. The Director attended the Twelfth International Congress of Paediatrics in Mexico City, at which he presented a paper, 'The Battered Child Syndrome—Management of the Parents'. The Director also continued as a member of the sub-committee set up by the Australian Paediatric Association to consider post-graduate training in paediatrics. The negotiations carried out by this committee on behalf of the Australian Paediatric Association have led to extensive and, it is hoped, satisfactory modifications in the examination for membership of the Royal Australasian College of Physicians.

Educational activities

Booklets prepared by the Institute were again issued to undergraduate medical students in the University of Sydney as part of their paediatric teaching. The booklet, *A Student's Guide to Infant Feeding,* has recently been completely revised and largely re-written, as has *A Student's Guide to Some Immunising Procedures.* It is planned also to revise the booklet *A*

Student's Guide to Dosage in Paediatrics. The opportunity will be taken to include additional information contained in the 1969 edition of *The Australian Pharmaceutical Formulary*.

Plans for the printing of a booklet, *Thalassaemia: A Parent's Guide*, designed to help migrant families from the Mediterranean area to understand some of the problems and complexities of this disorder, have been advanced following delays due to difficulties encountered with the translations into Greek and Italian. As no previous attempt seems to have been made to communicate facts about this disease to the parents of affected children in this way, it is hoped that this booklet may assist clinicians generally in dealing with this difficult disorder.

The Director of the Institute and Dr B. Dowd again acted as consultants in respect of the revised edition (1969) of *The Australian Pharmaceutical Formulary* (*Children's Section*). This edition is due to be published soon and will contain a greatly expanded children's section providing much new information on dosages for currently employed pharmaceuticals. Drugs listed in the children's section will also appear in a newly prepared index designed for ready reference.

Social work

The Institute social workers continued to play a most active part in the teaching of medical students, in the assessment of problem cases and in ensuring that long term patients, especially from the rheumatic fever clinic, the metabolic clinic and the gastroenterology clinic, continued their treatment and understood the problems which can arise in their illnesses. This enabled many of the problems to be prevented. Throughout the year, two students from the Social Work Department of the University of Sydney were supervised in the Institute.

Child psychiatry

In the Child Psychiatric Section of the Institute, consolidation of previous work was helped by the appointment of a psychiatric social worker to assist with clinical work and teaching. Undergraduate teaching for medical students and social work students was continued, as were lectures and case demonstrations for candidates for the entrance examination for membership of the Australian and New Zealand College of Psychiatry.

Regular consultative seminars were held with the staff of the Children's Section of the North Ryde Psychiatric Centre and also with the staff of the Family Welfare Bureau.

Research

After a series of delays the metabolic research laboratory became operational. This installation is well equipped and investigations will be undertaken into fundamental aspects of human biology as well as into more clinically oriented problems relating to certain inborn errors of metabolism. The basic research will be initially centred on the control mechanism of purine and folic metabolism, although it is expected that other avenues will be explored as different fields open up.

The gastroenterology unit continued to function both as a clinical unit concerned with the care of children with gastroenterological disease and as a research unit studying the small bowel in childhood. The unit continued to provide a consultation service for the Royal Alexandra Hospital for Children in gastroenterological disease and from 1 May 1968 to 1 May 1969, 132 consultations were received. During this period, seventy-six small bowel biopsies were performed and there were 136 attendances at the weekly gastroenterological out-patient clinic. The laboratory made a full morphological study of each biopsy performed and the principal research interest of the unit continued to be morphology of small bowel mucosa in childhood. The major research activity during 1968 was a study of the appearances of small bowel mucosa, at post-mortem, in 106 children. The follow-up of children with coeliac disease continued and fifteen coeliac children are now being seen regularly.

The long-term study of rheumatic fever and chorea, begun in 1952, was continued. The main aims of this study are to determine the effectiveness of penicillin prophylaxis in preventing rheumatic recurrence and ultimate cardiac damage and to study the history and course of the disease in as large a group of children as possible. Since the beginning of this study 287 children have received regular oral penicillin prophylaxis. In addition to the patients receiving penicillin, a large number of other rheumatic patients initially attending the Royal Alexandra Hospital for Children continued to be reviewed each year. A rheumatic clinic, which is held weekly, also acts as a consultation-centre for paediatricians and general practitioners who wish to refer children for an opinion concerning diagnosis and management.

The Institute's study of chronic urinary tract infections was also continued. A number of patients have been observed for some years. They have now finished long term treatment and are in the process of follow-up supervision in an attempt to assess the lasting effectiveness of their prolonged, active treatment.

The investigations into the patterns of growth of excessively overweight babies were extended a stage further by the collection of information about the dietary patterns during pregnancy of mothers of both overweight and normal babies, the weight gain of the mothers during pregnancy and the dietary patterns of the infants. Information has been collected on approximately 400 babies. This is now in the process of analysis.

In September 1968 a survey of congenital abnormalities in Nauru was carried out for the South Pacific Commission. During the survey 700 children were examined clinically, chest X-rays were performed and specimens of blood and urine brought back to Sydney for examination. The processing of these samples is still progressing. A high incidence of rheumatic fever was found and suggestions about public health matters were made.

International Health

Australia was involved in a wide range of international health activities during 1968-69. These included participation in the work of the World Health Organisation and associated bodies such as the International Agency for Research in Cancer; participation in numerous international conferences covering a wide field of health and related subjects; the provision of external medical aid and the training of overseas health workers.

World Health Organisation

The Nineteenth Session of the Western Pacific Regional Committee of WHO was held in Manila from 1 to 8 October 1968. The Australian Delegation to this conference was led by Dr H. M. Franklands. The Regional Director of WHO, Dr F. Dy, visited Australia during the year accompanied by the WHO Representative for the South Pacific, Dr J. Hirshman. Discussions were held with the Ministers and Departments concerned with WHO assistance to Papua and New Guinea as well as with the Department of Health.

A WHO travelling seminar in medical education was recently held in Australia as well as in other countries in the Western Pacific Region. The Australian sessions were held in Sydney and Perth in May 1969 and the participants from overseas included the deans of the medical schools in the Western Pacific Region. Topics discussed included the general objectives and development of the medical curriculum, evaluation of student performance, training of teachers and teaching methods, co-operation and collaboration between medical schools and community health needs. The regional Advisor on Education and Training, Dr C. J. Ross-Smith, represented the World Health Organisation Secretariat at the seminar.

Commonwealth Medical Conference

The Second Commonwealth Medical Conference was held in Kampala, Uganda, from 2 to 12 September 1968. The purpose of the conference was to 'review the progress of intra-Commonwealth medical co-operation; to consider whether any improvements and additions are desirable to the present arrangements for mutual assistance and for consultation and planning, and to make recommendations to governments'.

The basic theme underlying the discussions was the administration of medical aid. The agenda covered medical education, co-operation in regard to health services and the sharing of information on family planning. The representatives at the conference included ministers and medical administrators from twenty-five Commonwealth countries.

The conference considered that the emphasis in medical education should be on local training facilities carefully dovetailed into the requirements of the country. The value of regional co-operation, not necessarily limited to the Commonwealth, was appreciated. It was considered that where necessary services were lacking, special centres of excellence for teaching particular subjects should be developed. It was hoped that centres of teacher training, post-graduate study and para-medical education would be established, but it was also considered that the initiative for these must come primarily through the governments in the region. The conference noted the value of links between teaching and training institutions in developed and developing countries.

To assist the Secretary-General of the Commonwealth Secretariat, it was decided to add a medically qualified member to his staff. The duties of this officer would be to help provide continuity between the meetings of ministers and officials. A meeting was held in Boston prior to the Twenty-second World Health Assembly to discuss arrangements for the Third Commonwealth Medical Conference in 1971.

International Agency for Cancer Research

A special meeting of the Governing Council of the International Agency for Research in Cancer was held in Lyons, France, on 29 May 1969 to discuss the future financing of the agency. The basic objective of the agency is to promote international collaboration on cancer research. The present members are the United States, the United Kingdom, the Soviet Union, West Germany, France, Holland, Israel, Italy and Australia. Each member pays an equal contribution of $US150,000 to provide a total of $US1,350,000 per annum. The budget for 1969 was for $US1,752,000, which is in excess of income.

With the staffing and equipping of the new sixteen-storey headquarters building in Lyons still to be completed, budgetary commitments are expected to be even heavier. Ways and means are still being sought to adjust the contributions in relation to the national income of members and also to increase the membership of the agency.

Dr N. F. Ismerov, a WHO Assistant Director-General, visited Australia in October 1968. He is shown with Sir William Refshauge (left), and Dr J. H. Hirshman (right), WHO Representative for the South Pacific

International meetings

A number of important international medical meetings were held in Australia in 1968-1969. These included the Twenty-second Medical Assembly, the World Psychiatric Association Symposium and the Asian Pacific Congress of Gastro-Enterology.

External medical aid

The Department of Health is the principal consultant to the Department of External Affairs on external medical aid. It is also a member of the Interdepartmental Advisory Committee on External Aid.

Australian external economic aid in 1968-1969 was approved at a total of $155,029,000. To this figure should be added contributions to the United Nations, World Health Organisation, Food and Agriculture Organisation, International Labour Organisation and United Nations Educational, Scientific and Cultural Organisation, totalling $3,656,000. There are also considerable hidden subsidies in the running costs and capital expenditure for various educational institutions attended by private and officially sponsored overseas students. There are, for example, some 500 overseas undergraduate medical students in Australia. This number is equivalent to the total average attendance at one of the eight Australian medical schools.

Overseas and Australian nurses studying at the College of Nursing, Melbourne

Medical aid is a significant proportion of the total external aid supplied by Australia and has been provided to many South East Asian and Pacific countries and, to a lesser extent, to African countries.

Under the SEATO Aid Programme, doctors, nurses, technologists and administrators from Australia have worked in surgical teams in Viet Nam. These teams have been stationed in provincial hospitals for the purpose of undertaking emergency surgery in the absence of Vietnamese surgeons. After five years of work by the teams there is evidence of increasing ability by the Vietnamese to take over. For instance, at Long Xuyen, where the first Australian surgical team began work in 1964, there are now nine Vietnamese doctors on the hospital staff and some twenty in the town itself.

Australian surgeons have a fine reputation in Viet Nam and it is probable that their main effort will, in the future, be concentrated in surgical teaching at the new medical practice centre in Saigon and in general surgery and teaching at Bien Hoa, where there is still a considerable work load.

International training

The Department of Health acts as a training authority for government sponsored schemes such as the Colombo Plan, the SEATO Aid Programme, the Special Commonwealth African Assistance Plan and the South Pacific Aid Programme.

When a request is received for training of a student sponsored by an overseas government, the Department seeks a placement in accordance with the student's requirements and qualifications. Placements are made for students and fellows with hospitals, colleges of nursing, departments of health and associated instrumentalities, including the School of Public Health and Tropical Medicine, and with professional, medical, dental, nursing and paramedical bodies and associations for training with private medical practitioners.

When students are accepted by training institutions, arrangements are made for their itinerary and travel. On their return to their home countries, suitable journals and periodicals are supplied for three years and, in special cases, equipment may be supplied.

Ninety-six international students and fellows were placed by the Commonwealth Department of Health during 1968-69 and the assistance provided by many institutions and individuals acting as training institutions and supervisors is gratefully acknowledged.

National Health and Medical Research Council

The National Health and Medical Research Council once again had a busy year investigating and reporting on public health problems and planning the allocation of Commonwealth contributions to medical research.

The Council was constituted in 1936 to advise the Commonwealth and the States on public health and medical research matters. Advances in medical science and developments in the chemical and pharmaceutical industries, together with changes in social and economic patterns, have made the performance of the Council's functions a very complex task. One indication of the broadening of the scope of the Council's activities can be gained from the growth of the number of expert committees and sub-committees serving the Council. In the last ten years the number of these committees has increased from eighteen to fifty.

Medical research

The planning of support for and co-ordination of medical research is a matter calling for increasing attention and at present the N.H. & M.R.C. is preparing for broader support in the new fields of research. The Council has, amongst other committees, a Medical Research Advisory Committee whose terms of reference include the following:

> To investigate, keep under review and report to Council upon medical research in Australia as a whole, to estimate its trends and development and direct support where it is specially needed.

The Council is concerned that significant future trends in medical research should be identified as early as possible, that the available support be directed into the fields where it is most needed and that assistance be spread over appropriate periods of time to allow research establishments to estimate and plan to meet their future commitments.

For 1969 grants totalling $1,334,690 were made from the Medical Research Endowment Fund to assist 162 projects. In addition, some $350,000 has been allocated for undergraduate and post-graduate research scholarships and for overseas fellowships.

As commitments to medical research increase, the value of the work being performed in terms of ultimate benefit to the community becomes a matter of some interest. With this in mind the Council recently invited comments from several senior research workers on the aspects of practical medical importance to come from their research work in recent years. These comments have been most useful in assessing the overall cost benefit of N.H. & M.R.C. supported research in Australia. From them it is possible to gain an indication of the practical value to the Australian public of the contributions of research projects to medicine. These results cannot be equated specifically with numbers of lives saved, numbers of patients cured or with the economic saving to the community, but clearly the Australian public does benefit directly from such expenditure and the dividends are unusually large for the amounts expended.

Two sessions of the Council were held in 1968-69. The sixty-seventh session was held in Canberra in October 1968 and the sixty-eighth session in Brisbane in May 1969. Important matters dealt with at these meetings included the items mentioned below.

Organ transplantation and renal dialysis

A committee set up by the Council to rationalise the facilities for organ transplantation and renal dialysis in Australia presented an interim report to the sixty-seventh session. This report was primarily concerned with kidney transplantation and dialysis and resulted from three meetings of the committee. In view of the demand for this report it was subsequently printed as a booklet and has been widely distributed both in Australia and overseas.

Early detection of cancer

The Council has suggested guidelines to be followed in the early detection of cancer. At the same time it has emphasised that early detection is dependent upon the education of the public in a manner which does not produce undue apprehension and the provision of facilities for the early detection of common cancers in the population groups at risk.

Legislation on abortion

As a number of State Parliaments have recently been considering amending legislation on abortion, the Council has recommended that:

1. Medical practitioners, in consultation, should alone have the responsibility for the decision of terminating pregnancy.
2. The procedure should be performed in an approved hospital.
3. No grounds for legal action should exist against a medical practitioner for refusal to perform an abortion.

Child health

The Council has drawn attention to the need for special efforts to be made in identifying and following up certain categories of newborn infants considered to be at special risk, and has enumerated these categories for the guidance of medical practitioners.

The Council has also made recommendations on the prevention of burns in young children. Due to the difficulty of establishing adequate standards of flammability for children's clothing, it has so far not been possible for suitable legislation to be introduced by the States. In view of this, the Council considers that more effort should be made to draw the public's attention to the hazards associated with open fires and exposed heaters and to the advisability of children wearing close fitting rather than flowing garments.

Maternal health

The Maternal Health Committee of the Council is currently carrying out a survey of maternal deaths in Australia for the period 1964-66. A survey such as this has not been done before on a national basis in Australia and it is hoped that the information resulting from the survey will help to further reduce the risks in pregnancy.

At the sixty-eighth session of the Council a recommendation was made to the State health authorities that family planning facilities should be made readily available.

Analgesic nephropathy

For some years there has been concern at the association between certain kidney diseases and the excessive taking of analgesic preparations. The Council had previously recommended that a warning label should be required on all preparations containing phenacetin, pointing out that the medication may be dangerous when used in large amounts or for a long period. The Council has now recommended that the warning should be extended to include all preparations containing salicylates and paracetamol.

Human genetics

The sixty-sixth session of the Council had noted with approval a booklet entitled *Human Genetics* prepared by the United Kingdom Ministry of Health as a guide to doctors on genetic counselling. Following the Council's recommendation the Commonwealth Department of Health arranged for the booklet to be reprinted and during 1968-69 distributed copies to all doctors in Australia.

Synthetic detergents

As there was reason to believe that the use of 'hard' non-biodegradable detergents was affecting the efficiency of sewage treatment plants and the purity of underground water supplies, the Council set up a sub-committee to investigate and report on this matter. On the basis of the sub-committee's first report, the Council noted that industry would be voluntarily changing from non-biodegradable ('hard') to biodegradable ('soft') detergents and that the initial changeover would involve household detergents, which comprise over 70 per cent of the detergents marketed in Australia.

Narcotic drugs

At the sixty-eighth session, the Council expressed its willingness to assist the Commonwealth and State Ministers responsible for the control of narcotics and other drugs of dependence. The Council consequently agreed to make relevant information from committees and sub-committees available to the Health Working Party of the National Standing Control Committee on Drugs of Dependence.

Radiation health

The Council has in recent years distributed a number of codes of practice prepared by the Radiation Health Committee for the guidance of persons who could come into contact with ionising radiations. In 1968-69 a new code was issued for the safe handling of X-ray analysis equipment. Increasing use is being made of this equipment in universities, scientific establishments and industry.

Mental health

The Council made several recommendations during 1968-69 on important subjects in the field of mental health. The Council advised that there is a need to ensure proper care for persons who have attempted suicide, and that to facilitate this, suicide should no longer be legally regarded as a criminal act. The Mental Health Committee during the year also produced a guide on the management of attempted suicide. This was widely distributed and should be of particular help to medical practitioners in remote country areas where psychiatric services are not immediately available.

On the subject of student psychiatric health, the Council recommended that facilities for psychiatric investigations and psychological guidance should be readily available for tertiary education establishments so that students in need may obtain expert counselling.

The usage of modern psychotropic drugs was another matter considered by the Council in 1968-69. The last two decades have seen the introduction of an ever-growing number of drugs that affect human behaviour. These so called psychotropic drugs differ from the sedative drugs in that they affect mood, decrease abnormal ideation and tranquillise without causing undue sedation. In view of the wide usage of psychotropic drugs in medical practice today, the Council released a guide to these drugs which will be distributed to all medical practitioners and all fifth and sixth year medical students in Australia.

Smoking survey

Following the conference of Commonwealth and State Ministers of Health in July 1966 the Council was asked to consider the practicability of undertaking a survey of smoking habits and attitudes in Australia. An *ad hoc* committee of the Council was set up to supervise the survey, which was confined to school children as it is mainly during this period of life that smoking habits and attitudes are determined.

The first part of the survey was a factual study in which 26,000 children aged between nine and sixteen years were questioned on their current smoking habits and past experience. The second part was a pilot study in depth to determine the causal factors that led to some children smoking and others not smoking. This involved further questionnaires and individual interviews with about 5 per cent of those seen in part one of the survey.

The report of the survey has been forwarded to the Commonwealth and State Ministers and is to be published as an appendix to the Council's sixty-eigthth report.

Commonwealth Grants

Grants totalling $16.9m were made by the Commonwealth Government in 1968-69 to State Governments and non-profit making organisations to subsidise various schemes for the promotion and maintenance of certain health services for the community.

Home nursing subsidy scheme

The Commonwealth increased its subsidies to home nursing organisations from 1 September 1968. Under the *Home Nursing Subsidy Act* 1956, the Commonwealth provides financial assistance to home nursing organisations operating in the States. To be eligible for subsidy an organisation must be non-profit making, employ registered nurses and receive State or local government assistance.

Subsidy payments to organisations are based on the number of nurses employed on home nursing over and above the number employed during September 1956 and, in the case of services established since that date, on all nurses employed on home nursing. From 1 September 1968 the amounts payable per nurse employed were increased from $2,200 to $2,600 per annum for the former category and from $1,100 to $1,300 for the second.

Details of annual subsidies paid under the scheme are given in tables 77 and 78 on page 140.

The steady growth in home nursing under the scheme is indicated by the increasing number of home nurses in proportion to population. Since the commencement of the scheme in 1957 the number of nurses employed by subsidised organisations has increased from two to six per 100,000 of population.

Royal Flying Doctor Service

During the year the Commonwealth Government raised the level of financial assistance towards the operational and capital requirements of the Royal Flying Doctor Service. In the three-year period commencing 1 July 1968, the Commonwealth will provide $540,000 for operating costs and up to $510,000, on a dollar for dollar basis, for a capital programme mainly directed towards the purchase of additional and replacement aircraft.

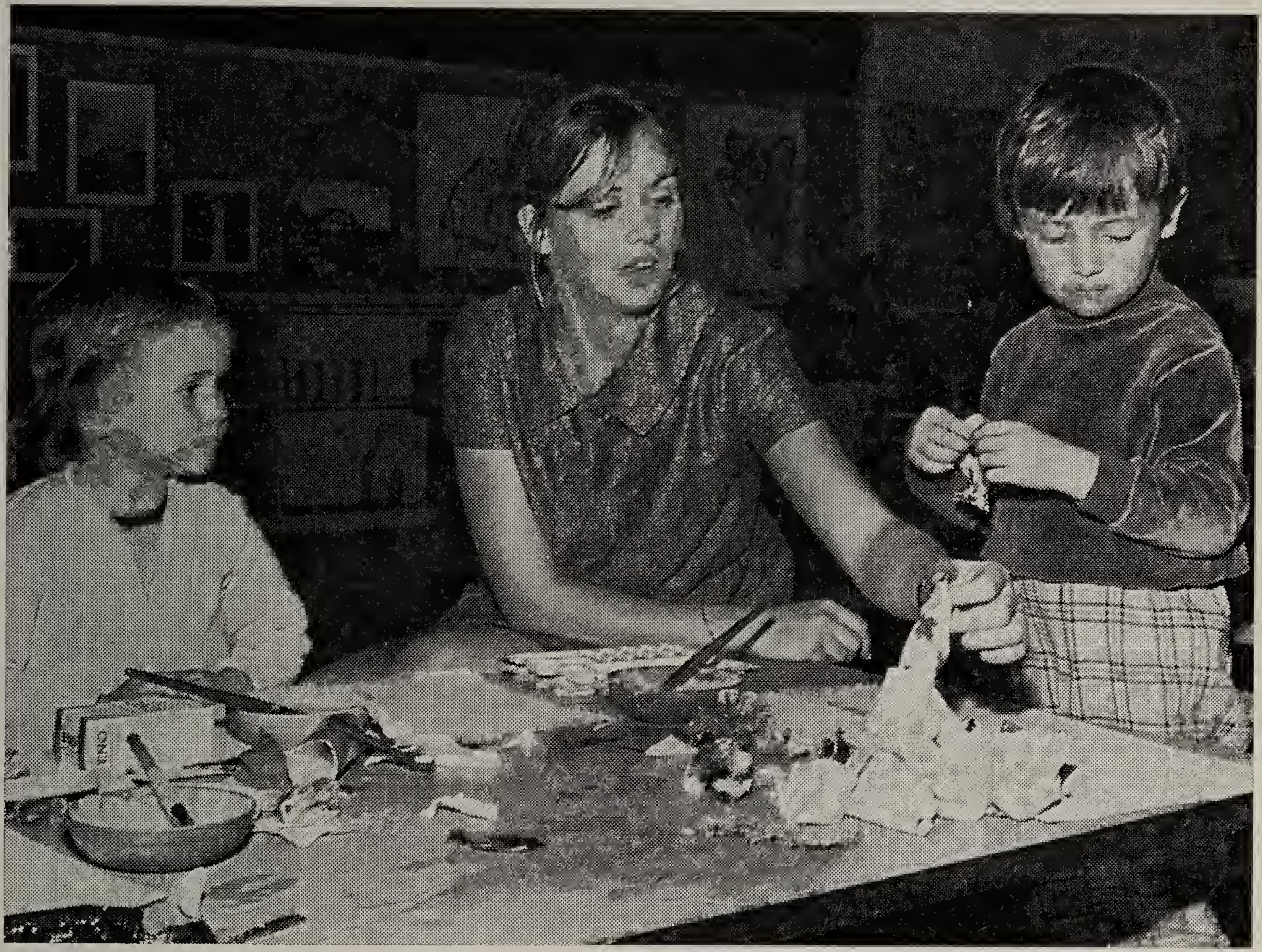
The Service is also faced with the need for an almost complete replacement of radio equipment vital in flying doctor work. Because of an international agreement, the double side-band network at present in use in Australia must be replaced by the single side-band system. The Commonwealth Government has agreed to meet the estimated cost of $480,000 for this change over at the twelve Royal Flying Doctor Service radio base stations.

Free milk for school children

Under the *State Grants* (*Milk for School Children*) *Act* 1950 the Commonwealth reimburses the States for the cost of the supply of milk to schools together with half of approved capital and incidental expenditure. Provision is also made for schools in the Australian Capital Territory and the Northern Territory to participate in the scheme. In general, one-third of a pint of milk is distributed to children under thirteen years of age attending primary schools, kindergartens, creches, nursery schools and Aboriginal missions.

Payments to the States for 1968-69 amounted to $9,834,600 for the suppply of milk to schools and $32,000 for capital and incidental expenditure. The cost of the supply of milk in the Australian Capital Territory and Northern Territory was $218,900.

Details of annual expenditure on the Free Milk Scheme since its commencement are shown in table 79 on page 141. The figures do not include payment for capital and incidental expenditure.



Children at the Lady Gowrie Child Centre, Melbourne. Similar centres in all State capitals investigate and demonstrate methods for the care and instruction of young children

Lady Gowrie child centres

The Commonwealth subsidises the activities of the Australian Pre-School Association, which administers the Lady Gowrie Centres, and in 1967-68 the grant was $120,000. This was divided equally among the six centres. In addition, a grant of $14,800 was made to the Australian Pre-School Association.

The Commonwealth established a Lady Gowrie Child Centre in each State capital in 1940 and made provision towards the cost of their operation. The centres carry out specialised demonstrations and research work in the problems of physical growth, nutrition and development and test and demonstrate methods for the care and instruction of young children. In more recent years the activities have included the mental development of children.

Mental health institutions

Under the *States Grants* (*Mental Health Institutions*) *Act* 1964-1967 the Commonwealth provides financial assistance to the States amounting to one-third of approved expenditure in connection with the buildings and equipment of mental health institutions.

The approval of new items of expenditure under the current Act terminated on 30 June 1969 but further subsidy will be paid up to 30 June 1970 in respect of expenditure approved before 30 June 1969.

Commonwealth financial assistance to the States under the Act during 1968-69 amounted to $4,655,000. Details of total annual expenditure by the Commonwealth and the States are shown in table 81 on page 142.

Blood transfusion service

The Australian Red Cross Society operates a nation-wide blood transfusion service from blood banks situated in each capital city. Blood transfusions and other treatments are provided free of charge. Since 1954 the Commonwealth has made an annual grant to each State Government equal to 30 per cent of the operating costs of the Blood Transfusion Service incurred by the Society in each State, provided that 60 per cent of the operating costs are paid by the State concerned. This has left 10 per cent of the operating costs to be met by the Society. Grants to the States for 1968-69 amounted to $743,000. Tables 75 and 76 on page 140 show the grants made since 1953-54.

The Society also operates blood transfusion services in the Australian Capital Territory and Northern Territory and the Commonwealth makes grants to the Society equal to 90 per cent of the operating expenses. Grants during 1968-69 were $8,400 for the Australian Capital Territory and $13,900 for the Northern Territory.

National Fitness

The additional facilities developed by State National Fitness Councils as a result of the Commonwealth's capital assistance programme have produced a significant increase in the number of young people and adults who have been able to take advantage of National Fitness recreation programmes.

The majority of Councils have used the Commonwealth assistance to develop their permanent camping properties and to purchase additional centres. The number of National Fitness camps in use throughout Australia is now over forty.

In Queensland, where there has been a rapid increase in the number of National Fitness regional organisers, a proportion of the Commonwealth capital assistance has been used in the building of recreation centres in country areas.

A significant development during 1968-69 has been the increased number and variety of courses offered to young people and adults in recreational activities. Through programmes arranged by National Fitness Councils many Australians have been introduced to 'life-long' sports and types of physical recreation which can be enjoyed by people well into middle age.

Canoeing is one of many recreational activities organised at National Fitness Camps each year

State Education Departments

Through the National Fitness Fund the Commonwealth continues to support the training of teachers involved in physical education. Education departments are assisted by the provision of $34,000 annually. These funds are used mainly to provide refresher courses for teachers in the field and also to assist in the development of school camping. Library and reference materials are also made available through the Commonwealth grant.

Universities

During the year grants totalling $24,800 were made to universities to assist in the training of teachers involved in full-time degree or diploma courses in physical education. In certain instances funds were also used to promote recreation activities for the general student body.

The universities of Melbourne, Queensland, Adelaide and Western Australia each received $4,200 and the universities of Sydney and Tasmania $4,000 each.

Keeping Fit booklet

The distribution of the booklet *Keeping Fit* has been one of the major factors contributing to a greatly increased interest throughout Australia in the need for physical fitness. The National Heart Foundation, as part of its programme of risk reduction in coronary heart disease, sought the assistance of the Commonwealth Council for National Fitness to publish an abridged version of *Keeping Fit*. An edition of 100,000 copies of the abridged booklet was financed by the Foundation and the booklet was distributed through its State bodies.

During the year the Commonwealth Council for National Fitness prepared a programme, which it intends to initiate late in 1969, to encourage an even greater participation in physical recreation activities.

National Fitness Films

Following its sponsorship of an award winning series of sporting films, made in association with the National Fitness Movement, the Shell Oil Company has agreed to sponsor another film series. Thirteen ten-minute colour films will be produced in which the various activities undertaken by National Fitness Councils throughout Australia will be portrayed. It is expected that much of the filming will be completed bv the end of 1969.

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APPENDIX 1—STATISTICS

TABLE 1. DEPARTMENTAL EXPENDITURE 1964-65 TO 1968-69

Year ended 30 June	*1965*	*1966*	*1967*	*1968*	*1969*
	$'000	*$'000*	*$'000*	*$'000*	*$'000*
National Welfare Fund					
Hospital Benefits	38,995	39,619	44,631	50,264	54,298
Nursing Home and Handicapped Children's Benefits	19,796	21,223	22,767	24,486	31,719
Medical Benefits	35,277	41,282	43,841	46,431	49,556
Pharmaceutical Benefits	82,203	91,784	101,281	105,134	118,373
Pensioner Medical Service	9,320	13,365	14,351	16,116	16,912
Free Milk for School Children	8,059	8,493	9,021	9,831	10,053
Tuberculosis*	10,146	13,379	10,983	11,269	11,460
Miscellaneous	2,859	3,453	3,947	4,349	4,624
Total National Welfare Fund	206,655	232,500	250,821	267,881	296,997
Consolidated Revenue Fund†					
Administrative Expenditure	8,722	10,026	11,507	13,636	15,038
Australian Capital Territory Health Services	1,920	2,388	3,291	3,805	3,955
Northern Territory Health Services	3,352	3,682	4,420	5,102	6,128
Capital Works and Services	986	1,105	1,096	1,545	1,192
Payments to or for the States	1,771	1,762	2,033	2,011	2,226
Other Services	. .	. .	. .	. .	266
Total Consolided Revenue Fund	16,751	18,962	22,346	26,099	28,805
Special Capital Grants to States for Mental Health Institutions	2,504	4,539	4,973	4,243	4,655
Total Expenditure	225,909	256,001	278,141	298,222	330,457

Apparent minor errors are due to 'rounding off'.

* In addition to the amounts shown allowances are paid by the Department of Social Services—see Table 45, page 128.

† The presentation of expenditure figures from the Consolidated Revenue Fund has been changed from that in previous Reports to accord with the expenditure divisions currently used for accounting purposes.

TABLE 2. HOSPITAL BENEFITS

NUMBER OF REGISTERED ORGANISATIONS, MEMBERSHIP AND COVERAGE—1952–53 TO 1968–69

As at 30 June	*No. of registered organisations*	*Membership**	*Estimated* coverage*	*Percentage of population covered*
		000's	*000's*	%
1953 . . .	139	1,500	3,413	39
1954 . . .	127	1,865	4,601	51
1955 . . .	128	2,111	5,121	56
1956 . . .	124	2,247	5,499	59
1957 . . .	122	2,373	5,878	61
1958 . . .	119	2,514	6,195	63
1959 . . .	116	2,749	6,774	68
1960 . . .	115	2,908	7,208	72
1961 . . .	115	3,044	7,500	72
1962 . . .	113	3,130	7,738	73
1963 . . .	110	3,176	7,895	73
1964 . . .	112	3,286	8,194	74
1965 . . .	111	3,407	8,732	77
1966 . . .	111	3,489	8,915	78
1967 . . .	109	3,657	9,342	80
1968 . . .	109	3,680	9,254†	77†
1969 . . .	106	3,877	9,481	77

* As advised by the organisations.

† Variations from previous year result from revision of coverage figures in one of the major organisations.

TABLE 3. HOSPITAL BENEFITS

NUMBER OF REGISTERED ORGANISATIONS, MEMBERSHIP AND COVERAGE—BY STATES—30 JUNE 1969

State	*No. of registered organisations*	*Membership**	*Estimated* coverage*	*Percentage of population covered*
		000's	*000's*	%
New South Wales . . .	32	1,507	3,660	80
Victoria	40	1,191	2,897†	86†
Queensland	4	328	831	47
South Australia . . .	13	419	1,021	85
Western Australia . . .	8	317	780	83
Tasmania	9	115	292	75
Commonwealth . .	106	3,877	9,481	77

* As advised by the organisations.

† Coverage in a major organisation reassessed.

TABLE 4. **HOSPITAL BENEFITS**

BENEFITS PAID TO CONTRIBUTORS BY REGISTERED ORGANISATIONS—1952–53 TO 1968–69

Year ended 30 June	*No. of days fund benefit paid*	*Average daily benefit*	*No. of claims per 100 members*	*Average stay in hospital per claim*
	000's	$		*days*
1953 . . .	1,874	1.03	13.4	10.98
1954 . . .	3,413	1.40	19.9	10.17
1955 . . .	4,642	1.58	23.5	9.92
1956 . . .	4,808	1.81	20.8	10.60
1957 . . .	5,492	2.32	23.3	10.30
1958 . . .	6,215	2.62	25.6	9.96
1959 . . .	7,049	2.75	26.9	9.74
1960 . . .	8,937	2.68	29.4	10.81
1961 . . .	9,740	2.88	29.7	11.02
1962 . . .	10,341	3.17	30.9	10.78
1963 . . .	10,419	3.43	32.1	10.29
1964 . . .	9,576	4.40	30.7	9.39
1965 . . .	9,988	4.83	32.5	9.23
1966 . . .	10,252	5.40	32.8	9.05
1967 . . .	10,444	6.61	33.4	8.72
1968 . . .	10,572	7.46	34.1	8.47
1969 . . .	10,963	8.57	34.4	8.41

TABLE 5. **HOSPITAL BENEFITS**

BENEFITS PAID TO CONTRIBUTORS BY REGISTERED ORGANISATIONS—BY STATES—1968–69

State	*No. of days fund benefit paid*	*Average daily benefit*	*No. of claims per 100 members*	*Average stay in hospital per claim*
	000's	$		*days*
New South Wales .	4,618	8.98	35.7	8.72
Victoria . .	2,784	9.30	28.2	8.68
Queensland . .	1,156	5.15	39.7	8.77
South Australia .	1,201	7.72	37.9	7.64
Western Australia .	862	9.47	39.1	7.16
Tasmania . .	343	9.20	38.2	7.78
Commonwealth	10,963*	8.57	34.4	8.41

* Apparent minor error in total due to 'rounding off'.

TABLE 6. **HOSPITAL BENEFITS**

AMOUNT OF COMMONWEALTH AND FUND BENEFITS PAID—1963–64 TO 1968–69

Year ended 30 June	*Commonwealth*					*Fund*		
	Uninsured patients	*Insured patients*	*Pensioner patients*	*Special account deficit*	*Total*	*Excluding ancillary*	*Ancillary*	*Total*
	$'000	*$'000*	*$'000*	*$'000*	$'000	'$000	*$'000*	*$'000*
1964 . .	2,578	18,657	13,354	3,749	38,338	42,120	1,162	43,282
1965 . .	2,614	19,221	13,585	3,576	38,995	48,282	1,537	49,819
1966 . .	2,464	19,616	14,665	2,873	39,619	55,330	2,232	57,562
1967 . .	2,376	19,740	18,731	3,784	44,631	66,379	2,632	69,011
1968 . .	2,298	19,807	23,665	4,494	50,264	78,903	2,879	81,782
1969 . .	2,240	20,425	24,520	7,113	54,298	93,901	3,182	97,083

Apparent minor errors in totals are due to 'rounding off'.

TABLE 7. **HOSPITAL BENEFITS**

Amount of Commonwealth and Fund Benefits Paid—by States—1968–69

	Commonwealth					*Fund**		
State	*Uninsured patients*	*Insured* patients*	*Pensioner patients*	*Special account deficits*	*Total*	*Excluding ancillary*	*Ancillary*	*Total*
	$'000	*$'000*	*$'000*	*$'000*	*$'000*	*$'000*	$'000	$'000
New South Wales	605	8,508	9,034	4,512	22,659	41,469	1,076	42,545
Victoria . .	371	5,169	5,540	1,399	12,479	25,901	899	26,800
Queensland .	875	2,306	4,388	261	7,830	5,948	234	6,182
South Australia .	99	2,037	2,105	574	4,815	9,270	553	9,823
Western Australia	150	1,722	2,375	343	4,590	8,160	345	8,505
Tasmania . .	45	684	836	25	1,590	3,153	75	3,228
Australian Capital Territory .	14	. .	191	. .	205	. .	. .	. .
NorthernTerritory	80	. .	51	. .	131	. .	. .	. .
Overseas . .	†	. .	. .	. .	. .	. .	. .	. .
Commonwealth .	2,240	20,425	24,520	7,113	54,298	93,901	3,182	97,083

Apparent minor errors in totals are due to 'rounding off'.

* Benefits dissected in accordance with the State of registration of organisations. No separate details available for A.C.T. and N.T.

† Commonwealth payments to uninsured patients overseas was $14.40.

TABLE 8. **HOSPITAL BENEFITS**

Number of Days for which Commonwealth Hospital Benefits were paid—1963–64 to 1968–69

Year ended 30 June	*Insured*	*Uninsured*	*Pensioners*	*Total*
	000's	*000's*	*000's*	*000's*
1964 . . .	9,386	3,221	3,709	16,317
1965 . . .	9,670	3,209	3,770	16,648
1966 . . .	9,861	3,080	4,074	17,015
1967 . . .	9,921	2,970	4,516	17,407
1968 . . .	9,956	2,872	4,726	17,555
1969 . . .	10,267	2,800	4,905	17,972

Apparent minor errors in totals are due to 'rounding off'.

TABLE 9. **HOSPITAL BENEFITS**

Number of Days for which Commonwealth Hospital Benefits were Paid—by States—1968–69

State	*Insured*	*Uninsured*	*Pensioners*	*Total*
	000's	*000's*	*000's*	*000's*
New South Wales .	4,283	757	1,807	6,847
Victoria . .	2,596	464	1,108	4,168
Queensland . .	1,159	1,094	878	3,130
South Australia .	1,021	124	421	1,566
Western Australia .	865	188	476	1,528
Tasmania . .	343	56	167	566
Australian Capital Territory . .	*	17	38	56
Northern Territory .	*	101	10	111
Overseas . .	*	. .	. .	. .
Commonwealth	10,267	2,800	4,905	17,972

Apparent minor errors due to 'rounding off'.

* Separate details of days for insured patients in Australian Capital Territory, Northern Territory and Overseas not available as benefits are dissected in accordance with the State of registration of organisations.

TABLE 10. HOSPITAL BENEFITS

Number of Approved Hospitals and Number of Beds—1962–63 to 1968–69

As at 30 June	No. of approved hospitals			No. of beds		
	Public	Private	Total	Public	Private	Total
1963	745	395	1,140	57,842	11,772	69,614
1964	750	392	1,142	58,177	12,039	70,216
1965	753	376	1,129	59,042	12,251	71,293
1966	759	350	1,109	60,173	12,162	72,335
1967	760	338	1,098	61,221	12,423	73,644
1968	762	331	1,093	61,657	12,455	74,112
1969	757	325	1,082	62,162	12,605	74,767

TABLE 11. HOSPITAL BENEFITS

Number of Approved Hospitals and Number of Beds—by States—30 June 1969

State	No. of approved hospitals			No. of beds		
	Public	Private	Total	Public	Private	Total
New South Wales	249	101	350	23,691	3,762	27,453
Victoria	159	93	252	13,482	3,155	16,637
Queensland	151	37	188	11,913	1,776	13,689
South Australia	61	62	123	4,297	2,271	6,568
Western Australia	105	24	129	5,350	1,233	6,583
Tasmania	26	8	34	2,241	408	2,649
Australian Capital Territory	2	..	2	622	..	622
Northern Territory	4	..	4	566	..	566
Commonwealth	757	325	1,082	62,162	12,605	74,767

TABLE 12. NURSING HOME BENEFITS

Amount of Commonwealth Nursing Home Benefits Paid—1962–63 to 1968–69

Year ended 30 June	Public nursing homes	Private nursing homes	Total
	$'000	$'000	$'000
1963*	2,513	4,133	6,646
1964	6,503	11,377	17,880
1965	6,773	13,023	19,796
1966	6,970	14,253	21,223
1967	7,249	15,518	22,767
1968	7,694	16,792	24,486
1969—			
Ordinary Benefit†	7,801	18,238	26,039
Supplementary Benefit†	1,406	4,199	5,605
Total	9,207	22,437	31,643

Apparent minor errors in totals are due to 'rounding off'.

* Six months 1.1.63 to 30.6.63.

† All patients received ordinary benefit of $2 per day, and intensive care patients received a supplementary benefit of $3 per day from 1 January 1969.

TABLE 13. NURSING HOME BENEFITS

AMOUNT OF COMMONWEALTH NURSING HOME BENEFITS PAID—BY STATES—1968–69

	Public nursing homes			*Private nursing homes*			*All nursing homes*		
State	*Ordinary benefit*	*Supplementary benefit*	*Total*	*Ordinary benefit*	*Supplementary benefit*	*Total*	*Ordinary benefit*	*Supplementary benefit*	*Total*
	$'000	*$'000*	*$'000*	*$'000*	*$'000*	*$'000*	*$'000*	*$'000*	*$'000*
New South Wales .	1,821	242	2,063	9,416	2,045	11,461	11,237	2,286	13,524
Victoria . . .	2,503	431	2,934	2,673	861	3,534	5,176	1,292	6,468
Queensland . .	1,810	317	2,127	2,282	453	2,734	4,092	769	4,861
South Australia* .	482	151	633	1,891	421	2,312	2,373	571	2,944
Western Australia .	840	181	1,021	1,453	337	1,791	2,293	519	2,812
Tasmania . .	344	85	429	502	79	581	846	164	1,010
Australian Capital Territory . . .	..	..	..	21	3	24	21	3	24
Commonwealth .	7,801	1,406	9,207	18,238	4,199	22,437	26,039	5,605	31,643

Apparent minor errors in totals are due to 'rounding off'.
All patients received ordinary benefit of $2 per day, and intensive care patients received a supplementary benefit of $3 per day from 1 January 1969.
* Includes Northern Territory.

TABLE 14. NURSING HOME BENEFITS

NUMBER OF DAYS FOR WHICH COMMONWEALTH NURSING HOME BENEFITS WERE PAID—1963–64 TO 1968–69

Year ended 30 June	*Public Nursing Homes*	*Private Nursing Homes*	*All Nursing Homes*
	000's	*000's*	*000's*
1964 . . .	3,252	5,688	8,940
1965 . . .	3,386	6,512	9,898
1966 . . .	3,485	7,127	10,612
1967 . . .	3,624	7,759	11,383
1968 . . .	3,847	8,396	12,243
1969—			
Ordinary Benefit* .	3,900	9,119	13,019
Supplementary Benefit*	469	1,400	1,868

Apparent minor errors in totals are due to 'rounding off'.
* All patients received ordinary benefit of $2 per day, and intensive care patients received a supplementary benefit of $3 per day from 1 January 1969.

TABLE 15. NURSING HOME BENEFITS

NUMBER OF DAYS FOR WHICH COMMONWEALTH NURSING HOME BENEFITS WERE PAID—BY STATES—1968–69

State	*Public Nursing Homes*		*Private Nursing Homes*		*All Nursing Homes*	
	Ordinary Benefit	*Supplementary Benefit*	*Ordinary Benefit*	*Supplementary Benefit*	*Ordinary Benefit*	*Supplementary Benefit*
	000's	*000's*	*000's*	*000's*	*000's*	*000's*
New South Wales	911	81	4,708	682	5,619	762
Victoria	1,251	144	1,336	287	2,588	431
Queensland	905	106	1,141	151	2,046	256
South Australia*	241	50	946	140	1,186	190
Western Australia	420	60	727	112	1,147	173
Tasmania	172	28	251	26	423	55
Australian Capital Territory	..	..	11	1	11	1
Commonwealth	3,900	469	9,119	1,400	13,019	1,868

Apparent minor errors in totals are due to 'rounding off'.

All patients received ordinary benefit of $2 per day, and intensive care patients received a supplementary benefit of $3 per day from 1 January 1969.

* Includes Northern Territory.

TABLE 16. NURSING HOME BENEFITS

NUMBER OF APPROVED NURSING HOMES AND NUMBER OF BEDS—1962–63 TO 1968–69

At 30 June	*No. of approved nursing homes*			*No. of beds*		
	Public	*Private*	*Total homes*	*Public*	*Private*	*Total beds*
1963	91	811	902	9,405	16,130	25,535
1964	98	850	948	10,353	18,332	28,685
1965	103	919	1,022	10,648	20,642	31,290
1966	104	955	1,059	10,851	22,224	33,075
1967	111	987	1,098	11,426	24,111	35,537
1968	114	1,008	1,122	11,832	26,051	37,883
1969	119	1,016	1,135	12,088	28,079	40,167

TABLE 17. NURSING HOME BENEFITS

NUMBER OF APPROVED NURSING HOMES AND NUMBER OF BEDS—BY STATES—30 JUNE 1969

State	*No. of approved nursing homes*			*No. of beds*		
	Public	*Private*	*Total*	*Public*	*Private*	*Total*
New South Wales	25	434	460	2,782	14,582	17,364
Victoria	40	218	258	3,877	4,230	8,107
Queensland	24	119	143	2,752	3,341	6,093
South Australia*	4	128	132	708	2,890	3,598
Western Australia	22	80	102	1,462	2,251	3,713
Tasmania	4	36	40	507	752	1,259
Australian Capital Territory	..	1	..	..	33	33
Commonwealth	119	1,016	1,135	12,088	28,079	40,167

* Includes Northern Territory.

TABLE 18. HANDICAPPED CHILDREN'S BENEFIT

By States—1968–69

State	*No. of approved handicapped persons homes as at 30 June 1969*	*No. of handicapped children accommodated*	*No. of days for which benefit paid**	*Total amount benefit paid**
				$
New South Wales .	6	429	12,822	19,233
Victoria . . .	3	135	4,747	7,120
Queensland . .	2	67	5,754	8,631
South Australia . .	2	216	21,915	32,872
Western Australia .	2	41	1,899	2,849
Tasmania . . .	2	38	3,543	5,315
Commonwealth .	17	926	50,680	76,020

* Six months 1 January 1969 to 30 June 1969.

TABLE 19. MEDICAL BENEFITS

Number of Registered Organisations, Membership and Coverage—1953–54 to 1968–69

As at 30 June	*No. of registered organisations*	*Membership**	*Estimated* coverage*	*Percentage of population covered*
		000's	*000's*	%
1954 . . .	79	1,358	3,502	39
1955 . . .	80	1,666	4,154	45
1956 . . .	82	1,901	4,806	51
1957 . . .	81	2,229	5,715	60
1958 . . .	81	2,422	6,148	63
1959 . . .	82	2,667	6,713	67
1960 . . .	83	2,908	7,311	72
1961 . . .	83	2,850†	7,173†	68
1962 . . .	82	2,846	7,275	68
1963 . . .	78	2,952	7,686	71
1964 . . .	81	3,095	8,058	73
1965 . . .	80	3,217	8,462	75
1966 . . .	80	3,313	8,679	76
1967 . . .	78	3,418	8,846	76
1968 . . .	78	3,456	8,817†	74
1969 . . .	78	3,635	9,017	74

* As advised by the organisations.

† Variations from previous year result from revision of membership figures in one of the major organisations.

TABLE 20. MEDICAL BENEFITS

Number of Registered Organisations, Membership and Coverage—by States—30 June 1969

State	*No. of registered organisations*	*Membership**	*Estimated* coverage*	*Percentage of population covered*
		000's	*000's*	%
New South Wales	28	1,390	3,415	75
Victoria	19	1,104	2,725†	81†
Queensland	6	328	842	48
South Australia	7	392	980	81
Western Australia . . .	8	309	768	82
Tasmania	9	113	287	74
Commonwealth . .	78	3,635	9,017	74

* As advised by the organisations.

† Coverage in a major organisation reassessed.

TABLE 21. MEDICAL BENEFITS

MEDICAL SERVICES RECEIVED BY CONTRIBUTORS TO REGISTERED ORGANISATIONS—FEE-FOR-SERVICE ONLY—1953–54 TO 1968–69

Year ended 30 June	*No. of services received*	*Percentage of G.P. to Total*	*Average No. of services per contributor*	*Average No. of services per person covered*	*Average cost per service**
	000's	%			$
1954 . . .	3,284	74	3.4	1.3	2.85
1955 . . .	9,453	70	6.2	2.5	2.91
1956 . . .	12,259	71	6.8	2.7	2.91
1957 . . .	13,668	75	6.6	2.6	3.10
1958 . . .	15,582	75	6.7	2.6	3.24
1959 . . .	16,819	75	6.5	2.5	3.28
1960 . . .	19,625	75	7.1	2.8	3.30
1961 . . .	20,123	73	7.3	2.8	3.56
1962 . . .	21,669	72	7.7	3.0	3.64
1963 . . .	23,431	72	8.0	3.1	3.69
1964 . . .	24,308	71	7.8	3.1	3.85
1965 . . .	25,847	70	8.3	3.2	4.02
1966 . . .	28,210	69	8.7	3.3	4.20
1967 . . .	29,269	68	8.7	3.4	4.48
1968 . . .	31,991	63	9.4	3.7	4.67
1969 . . .	34,134	63	9.7	3.8	4.87

* Average cost per matched service only from 1967–68. (A matched service is one for which both Commonwealth benefit and fund benefit are paid.)

TABLE 22. MEDICAL BENEFITS

MEDICAL SERVICES RECEIVED BY CONTRIBUTORS TO REGISTERED ORGANISATIONS—FEE-FOR-SERVICE ONLY—BY STATES—1968–69

State	*No. of services received*	*Percentage of G.P. to Total*	*Average No. of services per contributor*	*Average No. of services per persons covered*	*Average cost per service**
	000's	%			$
New South Wales .	13,251	61	9.7	3.9	5.21
Victoria . . .	9,210	66	8.8	3.3	4.93
Queensland . .	3,660	64	11.4	4.4	4.43
South Australia . .	4,166	61	10.8	4.3	4.47
Western Australia .	2,782	63	9.6	3.9	4.34
Tasmania . . .	1,065	53	9.7	3.8	4.53
Commonwealth .	34,134	63	9.7	3.8	4.87

* Average cost per matched service only. (A matched service is one for which both Commonwealth benefit and fund benefit are paid.)

TABLE 23. MEDICAL BENEFITS

AMOUNT OF COMMONWEALTH AND FUND BENEFITS PAID—1953–54 TO 1968–69

	Commonwealth			*Fund*		
Year ended 30 June	*Benefits*	*Special account deficits*	*Total*	*Excluding ancillary*	*Ancillary*	*Total*
	$’000	*$’000*	*$’000*	*$’000*	*$’000*	*$’000*
1954	2,868	..	2,868	2,929	..	2,929
1955	8,420	..	8,420	9,296	..	9,296
1956	10,827	..	10,827	12,408	..	12,408
1957	12,292	..	12,292	14,414	508	14,922
1958	14,171	..	14,171	16,953	636	17,589
1959	15,559	..	15,559	18,821	781	19,602
1960	18,410	173	18,583	22,790	997	23,787
1961	19,567	385	19,952	25,794	1,338	27,132
1962	21,291	532	21,823	29,062	1,744	30,806
1963	22,982	492	23,474	32,042	1,564	33,606
1964	24,232	615	24,847	34,442	1,708	36,150
1965	34,594	682	35,276	36,880	1,996	38,876
1966	40,507	775	41,282	42,560	1,942	44,502
1967	42,884	956	43,841	46,898	2,042	48,940
1968	45,475	956	46,431	50,332	2,244	52,576
1969	48,411	1,146	49,556	55,539	2,492	58,031

Apparent minor errors in totals due to ‘rounding off’.

TABLE 24. MEDICAL BENEFITS

AMOUNT OF COMMONWEALTH AND FUND BENEFITS PAID—BY STATES—1968–69

	Commonwealth			*Fund*		
Year ended 30 June	*Benefits*	*Special account deficits*	*Total*	*Excluding ancillary*	*Ancillary*	*Total*
	$’000	*$’000*	*$’000*	$’000	*$’000*	*$’000*
New South Wales	18,516	862	19,378	23,456	1,243	24,699
Victoria	13,052	136	13,188	14,282	465	14,747
Queensland	4,795	5	4,800	5,394	246	5,640
South Australia	6,097	52	6,150	6,077	276	6,354
Western Australia	4,345	87	4,432	4,725	164	4,888
Tasmania	1,606	3	1,609	1,605	98	1,704
Commonwealth	48,411	1,146	49,556	55,539	2,492	58,031

Apparent minor errors in totals are due to ‘rounding off’.

TABLE 25. MEDICAL BENEFITS

Cost of Medical Services to Contributors to Registered Organisations—1953–54 to 1968–69

Year ended 30 June	*Total cost of service (fee-for-service and contract)*	*Percentage of total cost met by—(fee-for-service only)*		
		Fund	*Commonwealth*	*Contributor*
	$'000	%	%	%
1954 . . .	9,112	31.7	31.4	36.9
1955 . . .	27,169	33.9	30.9	35.2
1956 . . .	35,276	35.0	30.6	34.4
1957 . . .	42,003	34.1	29.3	36.6
1958 . . .	49,625	33.9	28.3	37.8
1959 . . .	54,619	34.4	28.5	37.1
1960 . . .	64,203	35.4	28.2	36.4
1961 . . .	71,242	36.0	27.4	36.6
1962 . . .	78,499	36.9	27.0	36.1
1963 . . .	86,213	37.1	26.6	36.3
1964 . . .	93,313	36.8	25.9	37.3
1965 . . .	104,624	35.2	32.9	31.9
1966 . .	119,021	35.7	33.9	30.4
1967 . . .	131,770	35.5	32.2	32.3
1968 . . .	141,982	35.4	32.0	32.6
1969 . . .	157,862	35.1	30.2	34.7

TABLE 26. MEDICAL BENEFITS

Cost of Medical Services to Contributors to Registered Organisations—by States—1968–69

State	*Total cost of services (fee-for-service and contract)*	*Percentage of total cost met by—(fee-for-service only)*		
		Fund	*Commonwealth*	*Contributor*
	$'000	%	%	%
New South Wales .	65,624	35.7	28.4	35.9
Victoria. . .	43,835	32.5	29.7	37.8
Queensland . .	15,501	34.8	31.2	34.0
South Australia .	16,491	36.9	33.2	29.9
Western Australia .	12,088	38.8	35.8	25.4
Tasmania . .	4,323	36.8	31.8	31.4
Commonwealth	157,862	35.1	30.2	34.7

Apparent minor errors in totals are due to 'rounding off'.

TABLE 27. PENSIONER MEDICAL SERVICE

Number Enrolled, Number of Services Received and Average Attendances per Enrolled Person per annum—1951–52 to 1968–69

Year ended 30 June	*No. of pensioners and dependants enrolled at 30 June*	*No. of services received*			*Average No. of services per enrolled person*
		Surgery	*Domiciliary*	*Total*	
	000's	*000's*	*000's*	*000's*	
1952 . . .	501	1,228	1,015	2,334	5.0
1953 . . .	558	1,671	1,651	3,322	6.2
1954 . . .	597	2,076	2,092	4,168	7.2
1955 . . .	640	2,375	2,346	4,721	7.6
1956 . . .	668	2,669	2,514	5,183	7.9
1957 . . .	684	2,778	2,603	5,381	8.0
1958 . . .	697	2,992	2,774	5,766	8.3
1959 . . .	720	3,462	2,980	6,441	9.0
1960 . . .	740	3,763	3,076	6,839	9.4
1961 . . .	766	3,866	3,131	6,996	9.4
1962 . . .	810	4,139	3,223	7,363	9.3
1963 . . .	831	4,278	3,111	7,389	9.0
1964 . . .	844	4,406	3,020	7,426	8.9
1965 . . .	849	4,389	2,859	7,248	8.6
1966 . . .	1,006	4,670	2,824	7,494	8.4
1967 . . .	1,043	5,215	2,972	8,187	8.0
1968 . . .	1,115	5,757	2,898	8,655	7.9
1969 . . .	1,160	6,291	2,866	9,157	8.1

Apparent minor errors in totals are due to 'rounding off'.

TABLE 28. PENSIONER MEDICAL SERVICE

Number Enrolled, Number of Services Received and Average Attendances per Enrolled Person per annum—by States—1968–69

State	*No. of pensioners and dependants enrolled at 30 June*	*No. of services received*			*Average No of services per enrolled person*
		Surgery	*Domiciliary*	*Total*	
	000's	*000's*	*000's*	*000's*	
New South Wales* .	445	2,486	1,077	3,563	8.3
Victoria . . .	294	1,449	832	2,281	7.9
Queensland . .	189	1,100	364	1,464	7.9
South Australia† . .	113	590	353	943	8.6
Western Australia .	85	480	164	644	8.0
Tasmania . . .	37	186	76	262	7.2
Commonwealth .	1,164	6,291	2,866	9,157	8.1

Apparent minor errors in totals are due to 'rounding off'.
* Includes Australian Capital Territory.
† Includes Northern Territory.

TABLE 29. PENSIONER MEDICAL SERVICE

Number of Participating Doctors, Payments Received and Average Annual Payment per Doctor—1951–52 to 1968–69

Year ended 30 June	*No. of participating doctors at 30 June*	*Payments to doctors*	*Average receipts per annum*
		$'000	$
1952 . . .	3,502	2,070	620
1953 . . .	3,898	3,480	928
1954 . . .	4,239	4,231	1,024
1955 . . .	4,567	5,032	1,132
1956 . . .	4,730	5,749	1,236
1957 . . .	4,990	5,998	1,234
1958 . . .	5,243	6,398	1,250
1959 . . .	5,531	7,613	1,376
1960 . . .	5,685	8,225	1,466
1961 . . .	5,861	8,401	1,456
1962 . . .	6,012	8,796	1,476
1963 . . .	6,025	9,146	1,520
1964 . . .	5,899	9,531	1,598
1965 . . .	5,896	9,320	1,578
1966 . . .	6,034	13,365	2,246
1967 . . .	6,175	14,351	2,360
1968 . . .	6,333	16,115	2,573
1969 . . .	6,417	16,912	2,665

TABLE 30. PENSIONER MEDICAL SERVICE

Number of Participating Doctors, Payments Received and Average Annual Payment per Doctor—by States—1968–69

State	*No. of participating doctors at 30 June*	*Payments to doctors*	*Average receipts per annum*
		$'000	$
New South Wales* .	2,479	6,559	2,665
Victoria . . .	1,768	4,277	2,461
Queensland . .	872	2,647	3,064
South Australia† .	630	1,770	2,911
Western Australia .	464	1,168	2,459
Tasmania . . .	204	491	2,432
Commonwealth .	6,417	16,912	2,665

* Includes Australian Capital Territory.
† Includes Northern Territory.

TABLE 31. PHARMACEUTICAL BENEFITS

Cost of Prescriptions—1960–61 to 1968–69

Year ended 30 June	*Payments by Commonwealth*			*Patient contribution*	*Total cost*
	Excluding pensioners	*Pensioners*	*Total*		
	$'000	*$'000*	*$'000*	*$'000*	*$'000*
1961 . . .	34,282	14,677	48,959	10,325	59,284
1962 . . .	44,632	18,195	62,827	13,008	75,835
1963 . . .	47,093	19,831	66,924	14,742	81,666
1964 . . .	46,461	20,602	67,063	15,574	82,637
1965 . . .	48,930	21,564	70,494	16,841	87,336
1966 . . .	53,078	24,071	77,149	17,481	94,630
1967 . . .	56,656	29,280	85,936	18,347	104,283
1968 . . .	56,800	32,115	88,916	18,504	107,420
1969 . . .	64,025	36,609	100,634	20,129	120,764

Apparent minor errors in totals are due to 'rounding off'.

TABLE 32. PHARMACEUTICAL BENEFITS

Cost of Prescriptions—by States—1968–69

State	Payments by Commonwealth: Excluding pensioners	Pensioners	Total	Patient contribution	Total cost
	$'000	$'000	$'000	$'000	$'000
New South Wales .	24,715	14,886	39,602	7,748	47,349
Victoria . . .	18,112	8,712	26,824	5,587	32,411
Queensland . .	9,096	5,960	15,055	2,977	18,033
South Australia . .	6,016	3,514	9,530	1,890	11,420
Western Australia .	4,364	2,507	6,871	1,388	8,259
Tasmania . . .	1,722	1,030	2,752	540	3,292
Commonwealth .	64,025	36,609	100,634	20,129	120,764

Apparent minor errors in totals are due to 'rounding off'.

TABLE 33. PHARMACEUTICAL BENEFITS

Payments to Hospitals and Miscellaneous Services—by States—1960–61 to 1968–69

Year ended 30 June	New South Wales*	Victoria	Queensland	South Australia	Western Australia	Tasmania	Miscellaneous	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
1961 . .	1,785	2,620	1,190	511	415	172	110	6,803
1962 . .	2,454	2,536	1,413	417	652	170	71	7,712
1963 . .	2,890	3,360	1,856	597	822	247	214	9,986
1964 . .	3,341	4,300	2,200	712	892	75	256	11,776
1965 . .	3,039	4,396	2,114	738	764	414	243	11,708
1966 . .	6,692	4,000	1,613	607	700	713	309	14,635
1967 . .	5,233	5,000	2,041	1,110	1,100	538	322	15,344
1968 . .	6,222	4,103	2,198	1,416	1,286	602	392	16,219
1969 . .	6,586	4,160	2,655	1,403	1,803	706	427†	17,739

* Includes the Australian Capital Territory.

† Miscellaneous services expenditure consisted of—

	$'000
Biological products and prophylactic materials	272
Commonwealth Medical Officers and Immigration Service	20
Miscellaneous (including bush nursing and testing expenses)	135

Apparent minor errors in totals are due to 'rounding off'.

TABLE 34. PHARMACEUTICAL BENEFITS

DISSECTION OF BENEFIT PRESCRIPTION COSTS INTO INGREDIENT COST AND APPROVED SUPPLIERS' REMUNERATION—1960–61 TO 1968–69

Year ended 30 June	*Cost of ingredients and containers*	*Suppliers' remuneration*	*Total cost*
	$'000	*$'000*	*$'000*
1961 . . .	35,629	23,655	59,284
1962 . . .	46,714	29,121	75,835
1963 . . .	49,113	32,553	81,666
1964 . . .	49,398	33,239	82,637
1965 . . .	52,139	35,197	87,336
1966 . . .	57,293	37,337	94,630
1967 . . .	63,676	40,608	104,284
1968 . . .	66,662	40,758	107,420
1969 . . .	75,314	45,450	120,764

Apparent minor errors in totals are due to 'rounding off'.

Cost of ingredients and containers includes payments to suppliers for wastage on broken quantities of ready prepared items.

Remuneration includes markup on wholesale price and professional fees but does not include discount allowed to suppliers by wholesalers and manufacturers.

TABLE 35. PHARMACEUTICAL BENEFITS

DISSECTION OF BENEFIT PRESCRIPTION COSTS INTO INGREDIENT COST AND APPROVED SUPPLIERS' REMUNERATION—BY STATES—1968–69

State	*Cost of ingredients and containers*	*Suppliers' remuneration*	*Total cost*
	$'000	$'000	*$'000*
New South Wales . . .	29,541	17,808	47,349
Victoria	20,317	12,094	32,411
Queensland	11,127	6,905	18,033
South Australia . . .	7,118	4,302	11,420
Western Australia . . .	5,148	3,111	8,259
Tasmania	2,063	1,229	3,292
Commonwealth . .	75,314	45,450	120,764

Cost of ingredients and containers includes payments to suppliers for wastages on broken quantities of ready-prepared items.

Remuneration includes mark up on wholesale price and professional fees, but does not include discount allowed to suppliers by wholesalers and manufacturers.

TABLE 36. PHARMACEUTICAL BENEFITS

NUMBER OF PRESCRIPTIONS AND AVERAGE COST PER PRESCRIPTION—1960–61 TO 1968–69

	No. of benefit prescriptions			*Average cost per benefit prescription**		
Year ended 30 June	*Total population*	*Population excluding pensioners*	*Pensioner population*	*Total population*	*Population excluding pensioners*	*Pensioner population*
	000's	*000's*	*000's*	$	$	$
1961	31,217	20,489	10,728	1.90	2.18	1.37
1962	37,714	26,050	11,664	2.01	2.22	1.56
1963	42,192	29,518	12,674	1.93	2.09	1.57
1964	44,357	31,040	13,317	1.86	2.00	1.55
1965	47,556	33,715	13,841	1.83	1.95	1.56
1966	49,993	35,085	14,908	1.89	2.01	1.61
1967	53,687	36,751	16,936	1.94	2.04	1.73
1968	55,423	37,053	18,370	1.94	2.03	1.75
1969	60,408	40,453	19,954	2.00	2.08	1.83

* Includes patient contribution where applicable.

TABLE 37. PHARMACEUTICAL BENEFITS

NUMBER OF PRESCRIPTIONS AND AVERAGE COST PER PRESCRIPTION—BY STATES—1968–69

	No. of benefit prescriptions			*Average cost per benefit prescription**		
State	*Total population*	*Population excluding pensioners*	*Pensioner population*	*Total population*	*Population excluding pensioners*	*Pensioner population*
	000's	*000's*	*000's*	$	$	$
New South Wales . .	23,729	15,564	8,165	2.00	2.09	1.82
Victoria . . .	15,885	11,242	4,643	2.04	2.11	1.88
Queensland . . .	9,362	5,973	3,389	1.93	2.02	1.76
South Australia . .	5,672	3,798	1,874	2.01	2.08	1.88
Western Australia . .	4,143	2,791	1,352	1.99	2.06	1.85
Tasmania . . .	1,618	1,085	532	2.04	2.08	1.93
Commonwealth .	60,408	40,453	19,954	2.00	2.08	1.83

* Includes patient contribution where applicable.

TABLE 38. PHARMACEUTICAL BENEFITS

Number of Prescriptions per Head of Population and Average Cost per Head of Population—1960–61 to 1968–69

Year ended 30 June	*Number of prescriptions per head of population*			*Average cost per head of population**		
	Total Population	*Population excluding pensioners*	*Pensioner population*	*Total population*	*Population excluding pensioners*	*Pensioner population*
				$	$	$
1961	3.00	2.13	14.25	5.70	4.62	19.86
1962	3.56	2.65	14.80	7.20	5.92	23.08
1963	3.90	2.95	15.45	7.48	6.12	23.95
1964	4.02	3.05	15.91	7.51	6.10	24.38
1965	4.23	3.24	16.35	7.93	6.47	25.88
1966	4.36	3.32	16.38	8.25	6.68	26.45
1967	4.61	3.46	16.59	8.95	7.06	28.68
1968	4.65	3.42	16.82	9.01	6.95	29.40
1969	4.96	3.67	17.61	9.92	7.62	32.30

* Includes patient contribution where applicable.

TABLE 39. PHARMACEUTICAL BENEFITS

Number of Prescriptions per Head of Population and Average Cost Per Head of Population—by States—1968–69

State	*Number of prescriptions per head of population*			*Average cost per head of population**		
	Total population	*Population excluding pensioners*	*Pensioner population*	*Total population*	*Population excluding pensioners*	*Pensioner population*
				$	$	$
New South Wales	5.22	3.78	18.93	10.41	7.88	34.52
Victoria	4.73	3.66	16.08	9.66	7.73	30.17
Queensland	5.35	3.82	18.21	10.30	7.71	32.02
South Australia	4.73	3.49	17.02	9.52	7.25	31.92
Western Australia	4.46	3.29	16.74	8.89	6.78	31.03
Tasmania	4.19	3.11	14.65	8.54	6.48	28.34
Commonwealth	4.96	3.67	17.61	9.92	7.62	32.30

* Includes patient contribution where applicable.

TABLE 40. PHARMACEUTICAL BENEFITS

Drugs Dispensed by Chemists—(Benefits Dispensed in Hospitals are Excluded)—1968–69

Therapeutic category	*Percentage of total expenditure*	*Percentage of total prescriptions*
	%	%
Broad Spectrum Antibiotics	13.57	10.00
Penicillins	8.22	7.82
Blood Vessels—Drugs Acting On	9.53	5.34
Diuretics	7.98	4.57
Analgesics	7.97	7.92
Sedatives and Hypnotics	5.37	10.53
Anti-Histamines	5.55	6.36
Anti-Cholinergics	2.66	1.60
Genito-Urinary Infections—Drugs Acting On	3.11	2.17

Therapeutic category	*Percentage of total expenditure*	*Percentage of total prescriptions*
	%	%
Tranquillisers	2.59	1.69
Antacids	2.28	3.34
Heart—Drugs Acting On	1 91	2.13
Anti-Diabetics	1.96	1.07
Eye Drops	1.61	2.01
Bronchial Spasm—preparations	1.79	2.01
Anti-Convulsants	1.36	0.67
Sulphonamides	1.14	1.74
Iron Preparations	1.13	1.97
Gastro Intestinal Sedatives	1.03	1.12
Expectorants and Cough Suppressants	1.08	2.56
Other Drugs	18.16	23.38

TABLE 41. PHARMACEUTICAL BENEFITS

Number of Pharmaceutical Chemists and Medical Practitioners Dispensing Pharmaceutical Benefits Prescriptions—1949–50 to 1968–69

A. *Pharmaceutical Chemists* approved under Section 90 of the *National Health Act* 1953–1968 for the purpose of supplying pharmaceutical benefits.

B. *Medical Practitioners* approved under Section 92 of the *National Health Act* 1953–1968 for the purpose of supplying pharmaceutical benefits in areas in which there are no other pharmaceutical services available.

	New South Wales		*Victoria*		*Queensland*		*South Australia*		*Western Australia*		*Tasmania*		*Common-wealth*	
As at 30 June	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*	*A*	*B*
1950	1,200	2	1,038	6	285	3	265	27	202	12	90	..	3,080	50
1951	1,252	25	1,054	6	332	4	292	30	208	12	93	7	3,231	84
1952	1,323	26	1,070	7	348	5	305	29	212	12	95	8	3,353	87
1953	1,368	29	1,102	8	388	5	329	24	221	10	94	10	3,502	86
1954	1,452	31	1,170	8	437	6	368	25	232	11	95	11	3,754	92
1955	1,519	32	1,206	5	476	7	384	20	243	12	95	12	3,923	88
1956	1,574	31	1,245	6	520	8	396	20	261	11	97	11	4,093	87
1957	1,615	27	1,284	7	554	8	403	19	270	12	101	11	4,227	84
1958	1,681	28	1,299	7	571	8	424	18	282	12	111	11	4,368	84
1959	1,763	30	1,348	6	603	9	433	16	292	11	113	12	4,552	84
1960	1,818	29	1,383	6	645	9	436	17	296	10	118	12	4,696	83
1961	1,877	34	1,402	6	676	7	449	14	311	7	123	12	4,838	80
1962	1,933	36	1,414	6	696	6	459	13	312	6	127	11	4,941	78
1963	2,008	32	1,455	6	721	7	470	14	325	7	131	10	5,100	76
1964	2,065	31	1,482	7	750	6	474	12	338	8	134	12	5,243	76
1965	2,101	32	1,520	7	775	5	487	10	354	8	138	12	5,375	74
1966	2,140	33	1,545	6	805	6	507	9	363	5	141	12	5,501	71
1967	2,204	34	1,583	5	818	4	520	9	370	5	143	13	5,638	70
1968	2,228	30	1,602	3	843	5	527	9	382	5	146	14	5,728	66
1969	2,254	32	1,616	5	866	4	536	7	387	5	147	13	5,806	66

TABLE 42. **PHARMACEUTICAL BENEFITS**

NUMBER OF PRESCRIPTIONS AND COST OF MORE FREQUENTLY PRESCRIBED THERAPEUTIC GROUPS—1967–68 AND 1968–69

Therapeutic category	*Year ended 30 June*			
	1968		*1969*	
	Prescriptions	*Cost*	*Prescriptions*	*Cost*
	000's	*$'000*	*000's*	*$'000*
Broad spectrum antibiotics	5,049	13,619	6,039	16,386
Blood vessels—drugs acting on	3,040	10,427	3,223	11,514
Penicillins	4,353	9,338	4,724	9,929
Diuretics	2,515	8,647	2,763	9,634
Analgesics	4,362	8,448	4,784	9,630
Sedatives and hypnotics	6,651	6,476	6,360	6,480
Anti-histamines	3,342	5,828	3,844	6,707
Genito-urinary infections—drugs acting on	1,246	3,201	1,313	3,758
Anti-cholinergics	907	3,178	965	3,211
Tranquillisers	899	2,673	1,019	3,127
Antacids	1,896	2,429	2,017	2,750
Heart—drugs acting on	1,259	2,338	1,284	2,303
Anti-diabetics	605	2,222	644	2,369
Eye drops	1,152	1,823	1,214	1,947
Anti-depressants	411	1,524	559	2,085
Anti-convulsants	387	1,504	405	1,644
Bronchial spasm—preparations	934	1,459	1,215	2,157
Sulphonamides	1,078	1,422	1,050	1,380
Gastro-intestinal sedatives	665	1,212	674	1,249
Iron preparations	1,027	1,151	1,192	1,359
Corticosteroids	119	1,039	134	1,092
Water and electrolyte replacement	511	965	768	1,329
Expectorants and cough suppressants	1,072	898	1,549	1,301
Sera vaccines	452	744	689	1,277
Parkinsons—drugs used for	176	558	271	836

Note: Cost includes the patient contribution on prescriptions available to the general public.

TABLE 43. **TUBERCULOSIS**

NUMBER OF ALLOWANCES, NOTIFICATIONS AND MORTALITY—1952 TO 1968

Year ended 31 December	*No. of Allowances Current*	*Notifications*			*Deaths*		
		No. pulmonary	*No. all forms*	*Incidence per 100,000 all forms*	*No. pulmonary*	*No. all forms*	*Per 100,000 all forms*
1952	6,127	4,761	4,786	54.8	1,165	1,290	14.8
1953	5,696	4,787	4,979	55.9	879	974	10.9
1954	5,742	4,650	4,952	54.5	823	897	9.9
1955	5,029	4,360	4,602	49.4	672	729	7.8
1956	4,182	4,169	4,419	46.4	663	724	7.6
1957	3,326	3,762	4,035	41.4	543	585	6.0
1958	2,750	3,632	3,708	37.2	501	538	5.4
1959	2,503	3,160	3,582	35.2	509	549	5.4
1960	2,235	3,556	4,084	39.2	447	489	4.7
1961	2,017	3,239	3,570	34.0	412	447	4.3
1962	1,845	3,503	3,825	35.3	448	475	4.4
1963	1,796	3,574	3,883	35.2	410	440	4.0
1964	1,573	3,113	3,446	30.6	388	413	3.7
1965	1,378	2,624	2,903	25.3	259	294	2.6
1966	1,177	2,276	2,549	21.8	303	321	2.8
1967	1,009	2,005	2,293	19.2	249	275	2.3
1968	858	1,926	2,233	18.3	*	243	2.0

* The 8th revision of the International Classification of Diseases caused a break in comparability with figures for previous years and therefore from 1968, only total death figures are available.

TABLE 44. TUBERCULOSIS

Number of Allowances, Notifications and Mortality—by States—Year Ended 31 December 1968

		Notifications			*Deaths*	
State	*No. of allowances current*	*No. pulmonary*	*No. all forms*	*Incidence per 100,000 all forms*	*No. all forms*	*Per 100,000 all forms*
New South Wales .	274	747	850	19.2	66	1.5
Victoria . .	190	445	535	15.9	68	2.0
Queensland . .	238	435	479	27.3	61	3.5
South Australia .	78	90	110	9.7	17	1.5
Western Australia .	38	114	151	16.2	14	1.5
Tasmania . .	40	44	51	13.2	14	3.6
Australian Capital Territory . .	*	13	14	11.9	1	0.9
Northern Territory	†	38	43	67.2	2	3.1
Commonwealth .	858	1,926	2,233	18.3	243	2.0

* Included in New South Wales figure.
† Included in South Australia figure.

TABLE 45. TUBERCULOSIS

Expenditure Under the Tuberculosis Act—1949–50 to 1968–69

Year ended 30 June	*Capital re-imbursements to States*	*Maintenance re-imbursements to States*	*Allowances paid to sufferers*	*Total*
	$'000	*$'000*	*$'000*	*$'000*
1950 . . .	472	692	..	1,165
1951 . . .	809	1,887	2,690	5,386
1952 . . .	1,290	4,229	3,555	9,074
1953 . . .	2,327	5,965	3,816	12,107
1954 . . .	2,591	7,478	3,753	13,822
1955 . . .	3,422	7,601	3,809	14,832
1956 . . .	3,495	8,101	3,380	14,976
1957 . . .	4,757	9,610	2,921	17,289
1958 . . .	4,257	9,138	2,509	15,905
1959 . . .	2,822	9,688	2,125	14,636
1960 . . .	1,458	8,753	2,051	12,262
1961 . . .	776	8,473	1,893	11,142
1962 . . .	756	8,800	1,746	11,302
1963 . . .	984	9,932	1,607	12,523
1964 . . .	598	10,669	1,593	12,861
1965 . . .	703	10,337	1,458	12,497
1966 . . .	689	13,577	1,286	15,552
1967 . . .	499	11,238	1,193	12,930
1968 . . .	780	11,508	1,091	13,380
1969 . . .	847	11,743	921	13,511
Total . .	34,334	169,419	43,397	247,150

Apparent minor errors in totals are due to 'rounding off'.

TABLE 46. TUBERCULOSIS

EXPENDITURE UNDER THE TUBERCULOSIS ACT—BY STATES—1968–69

State	*Capital*	*Maintenance*	*Allowances*	*Total*
	$'000	*$'000*	*$'000*	*$'000*
New South Wales . . .	572	4,353	317*	5,242
Victoria	175	3,382	199	3,756
Queensland	39	2,353	226	2,618
South Australia . . .	60	602	89†	750
Western Australia . . .	. .	673	44	717
Tasmania	2	380	46	428
Commonwealth . .	847	11,743	921	13,511

Apparent minor errors in totals are due to 'rounding off'.
* Includes the Australian Capital Territory.
† Includes the Northern Territory.

TABLE 47. TUBERCULOSIS

RESULTS OF MASS X-RAY SURVEYS—BY STATES—YEAR ENDED 31 DECEMBER 1968

State	*No. examined*	*No. active T.B.*	*Rate per 1,000 examined*	*No. inactive T.B.*	*Rate per 1,000 examined*	*No. Suspect active T.B.*	*Rate per 1,000 examined*
New South Wales . .	777,140	160	0.21	4,369	5.62	68	0.09
Victoria . . .	663,707	211	0.32	1,608	2.42	. .	. .
Queensland . . .	328,260	103	0.31	1,421	4.33	324	0.99
South Australia . .	109,183	38	0.35	1,123	10.29	14	0.13
Western Australia . .	68,800	11	0.16	26	0.38	3	0.04
Tasmania . . .	106,004	12	0.11	460	4.34	9	0.08
Australian Capital Territory	. .	. .	. .	. .	. .	. .	. .
Northern Territory . .	14,464	17	1.18	205	14.17	20	1.38
Commonwealth .	2,067,558	552	0.27	9,212	4.46	438	0.21

TABLE 48. PUBLIC HEALTH

NOTIFIABLE DISEASES IN THE STATES OF AUSTRALIA—1968–69†

Disease	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*N.T.*	*Aust.*
Acute Rheumatism	*	12	68	..	*	1	..	1	82
Amoebiasis	*	..	..	2	1	..	4	2	9
Ancylostomiasis	*	2	11	..	22	..	..	428	463
Anthrax	1	..	..	..	..	..	..	..	1
Brucellosis	10	77	5	..	1	2	..	..	95
Diarrhoea, Infantile	491	522	216	12	*	4	13	154	1,412
Diphtheria	7	10	..	..	..	1	..	..	18
Dysentery, Bacillary	*	136	78	213	108	9	..	146	690
Encephalitis	41	43	28	49	..	..	17	..	178
Gonorrhoea	4,347	1,452	1,000	673	736	116	45	472	8,841
Hydatid	24	7	..	1	3	10	..	..	45
Infective Hepatitis	2,499	2,078	1,226	464	127	561	64	42	7,061
Leprosy	..	..	2	2	36	..	..	16	56
Leptospirosis	14	3	60	..	1	*	..	1	79
Malaria	70	24	54	7	7	..	3	24	189
Ornithosis	4	..	2	..	..	*	1	..	7
Paratyphoid	3	4	..	..	1	4	..	..	12
Puerperal Fever	*	4	3	..	1	1	..	..	9
Q Fever	3	*	103	*	*	*	*	*	106
Rubella	*	2,113	225	462	*	2	115	22	2,939
Salmonella Infection	*	*	*	167	145	16	45	57	430
Scarlet Fever	*	408	75	52	13	6	11	..	565
Syphilis	348	92	117	44	143	2	..	13	759
Tetanus	6	5	19	..	..	..	..	..	30
Trachoma	*	11	*	..	*	*	..	1	12
Tuberculosis	734	606	374	118	209	59	14	44	2,158
Typhoid Fever	10	8	11	2	..	..	1	3	35
Typhus (flea, mite or tick borne)	1	..	4	..	1	..	..	..	6

* Not notifiable. .. No cases.

† The figures shown in this table are the number of cases notified by individual medical practitioners to State Health Departments.

No case of cholera, plague, smallpox, epidemic typhus or yellow fever.

TABLE 49. PUBLIC HEALTH

POLIOMYELITIS—NUMBER OF CONFIRMED CASES—BY STATES—1957–58 TO 1968–69

Year ended 30 June	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*N.T.*	*Aust.*
1958	21	3	3	5	2	3	..	..	37
1959	18	78	3	1	1	1	..	..	102
1960	17	10	4	7	6	2	..	14	60
1961	8	80	19	22	..	46	..	3	178
1962	367	21	157	19	6	..	..	2	572
1963	5	11	..	17	2	..	..	..	35
1964	2	19	..	2	2	..	..	..	25
1965	4	..	..	..	..	..	..	..	4
1966	..	..	1	..	..	1	..	..	2
1967	..	1	..	..	..	..	..	..	1
1968	..	..	..	..	..	..	..	..	..
1969	..	1	..	..	..	1	..	..	2

TABLE 50. PUBLIC HEALTH

INFECTIOUS HEPATITIS—CASES NOTIFIED—BY STATES—1961 TO 1968

State	*Year ended 31 December*							
	1961	*1962*	*1963*	*1964*	*1965*	*1966*	*1967*	*1968*
New South Wales	6,025	3,358	2,822	2,667	3,299	4,191	4,015	2,530
Victoria	3,515	3,533	3,840	2,705	1,988	2,142	3,017	2,358
Queensland	1,022	885	1,433	1,148	511	843	1,972	1,816
South Australia	1,406	504	293	277	413	978	1,295	535
Western Australia	262	117	145	101	86	31	160	152
Tasmania	304	630	856	638	199	202	423	593
Australian Capital Territory	281	88	20	12	51	125	248	60
Northern Territory	61	100	104	57	128	83	166	99
Commonwealth	12,876	9,215	9,513	7,605	6,675	8,595	11,296	8,143

TABLE 51. PUBLIC HEALTH

RADIO AND TELEVISION SCRIPTS ON MEDICAL MATTERS EXAMINED—1968–69

Type of script	*Number examined*	*Approved*		*Approved as amended*		*Rejected*	
		Number	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*
Radio	805	363	45.1	372	46.2	70	8.7
Television	238	143	60.1	80	33.6	15	6.3
Total	1,043	506	48.5	452	43.3	85	8.2

TABLE 52. QUARANTINE

VESSELS BOARDED AND CLEARED—BY STATES—1968–69

State	*Surface*			*Air*		
	Vessels	*Crew*	*Passengers*	*Vessels*	*Crew*	*Passengers*
New South Wales	1,229	70,940	54,662	3,118	33,929	237,593
Victoria	365	30,411	54,615	3	30	129
Queensland	1,065	56,065	10,249	398	3,924	27,248
South Australia	316	15,246	6,404	11	99	238
Western Australia	1,377	89,468	120,706	590	6,877	62,827
Tasmania	214	6,815	1,128	. .	. .	. .
Northern Territory	247	7,908	1,088	1,776	13,077	132,738
Commonwealth	4,813	276,853	248,852	5,896	57,936	460,773

TABLE 53. QUARANTINE

INFECTIOUS DISEASES ON OVERSEAS VESSELS ARRIVING IN AUSTRALIA—1968–69

Disease	*No. of cases*
Chickenpox	41
Infectious Hepatitis	2
Measles	204
Mumps	17
Rubella	8
Salmonella Infection	1
Venereal Disease	248
Total	521

TABLE 54. QUARANTINE

Animal Importations Subject to Quarantine—1968–69

Type	*Number*
Cattle—from New Zealand	52
Horses—from United Kingdom	87
from New Zealand	757
Dogs and cats—from United Kingdom	913
from New Zealand	609
Small laboratory animals for scientific institutions	647
Monkeys from Malaysia for Commonwealth Serum Laboratories	375
Animals for permanent quarantine in registered zoological gardens and circuses	271
Total	3,711

TABLE 55. NORTHERN TERRITORY HEALTH

Aerial Medical Service—1968–69

	Darwin	*Alice Springs*
Emergency flights	239	28
Routine flights	323	405
Hours flown	2,144	1,007
Miles flown	278,835	142,380
Patients carried	1,038	309
Patients carried by charter and commercial services	54	47
Radio medical consultations	2,180	3,318

TABLE 56. NORTHERN TERRITORY HEALTH

Health Services Provided at Main Northern Territory Hospitals—1968–69

	Darwin	*Alice Springs*	*Tennant Creek*	*Katherine*	*Batchelor*
No. of bed days	95,919	50,784	5,864	17,793	..
No. of admissions	8,730	3,793	794	1,801	..
Average daily No. of inpatients	262.8	138.8	16.1	48.7	..
No. of births	1,064	354	68	158	..
No. of deaths in hospital	107	73	11	25	..
No. of postmortem examinations	101	47	12	25	..
No. of major operations	1,033	291	7	24	..
No. of minor operations	2,768	931	228	259	..
No. of outpatient attendances	92,295	30,630	11,888	14,200	1,267* 5,027†
Dispensaries—					
Prescriptions dispensed	154,352	94,450	8,266	24,250	..
Average No. of prescriptions dispensed per working day	585.4	357.7	31.3	91.6	..
X-ray Department—‡					
No. of exposures	40,813	14,365	2,343	3,765	..
Ambulance Services—					
No. of trips	2,578	529	145	292	..
No. of patients carried	3,604	591	205	359	..
No. of miles travelled	27,308	23,454	16,299	15,439	..
Physiotherapy Department—‡					
No. of patients	2,030	2,273	..	..	..
No. of treatments	9,974	7,234	..	..	..

* Doctor's clinic.

† Daily clinic.

‡ Inpatients and outpatients.

TABLE 57. NORTHERN TERRITORY HEALTH

Dental Services Provided in the Northern Territory—1968–69

	Darwin Dental Clinic	*Aerial Mobile**	*Overland Mobile**	*Darwin Schools*	*Alice Springs†*	*Nightcliff Clinic*
Examinations	3,289	3,487	3,041	30	1,014	1,509
Extractions	3,402	1,086	1,150	25	1,261	1,222
Porcelain restoration	800	150	288	92	328	589
Amalgam restoration	3,284	1,393	1,292	261	1,921	2,975
Inlays	106	1	21	..	45	46
Crowns	49	..	..	..	15	25
Bridges	6	..	..	..	..	1
Dressings	2,128	89	127	14	318	777
X-rays	1,709	2	137	59	729	463
G.A.'s hospital	69	..	..	..	24	49
Root treatment	36	1	1	..	57	31
Scale and clean	101	63	88	2	119	70
Infective Gingivitis	..	..	..	..	..	..
Orthodontist	951	2	28	2	155	148
Oral surgery	77	14	32	..	10	25
Jaw fracture	30	..	..	..	2	..
Other treatment	2,109	72	372	14	1,142	1,286
Dentures—Full	164	6	69	..	68	55
Partial	84	5	52	..	45	62
Repair	689	6	66	..	236	108
Remodel	46	2	16	..	19	29
Impressions	865	1	202	..	318	268

* Operating from Darwin.
† Including Mobiles and Schools.

TABLE 58. AUSTRALIAN CAPITAL TERRITORY HEALTH

Licences Issued Under the Public Health Ordinance—1968

Barber shops	78	Meat vendors	67
Eating houses	92	Milk distributors	76
Boarding houses	66	Milk vendors	207
Ice cream vendors	7	Prepared meat vendors	242

TABLE 59. AUSTRALIAN CAPITAL TERRITORY HEALTH

SAMPLES COLLECTED BY HEALTH INSPECTION SECTION—1968–1969

	For bacteriological examination	For chemical examination
Milk	2,250	697
Cream	137	117
Meat	. .	64
Other foods	71	124
Water—City supply	2,130	156
Swimming pools	184	. .
Picnic resorts and other supplies	433	40
Fluoride	. .	1,231
Sewerage	259	24
Lake Burley Griffin and Molongo River	609	28

TABLE 60. SCHOOL MEDICAL SERVICE EXAMINATIONS—1968-69

	Number of Children
No. examined—1968–69	14,788
Defective visual acuity	940
Defective hearing	514
Defective speech	86
No. examined—1.7.68 to 31.12.68*	6,970
Cardiovascular defects	13
Nose and throat defects	13
Hernias	12
Orthopaedic defects	9
No. examined—1.1.69 to 30.6.69*	7,818
Psychological conditions	138
Referred to Child Guidance Clinic	116
Referred to Commonwealth Acoustic Laboratory	72
Parent interviews	696

* Basis for statistical recording was altered with effect from 1 January 1969.

TABLE 61. AUSTRALIAN CAPITAL TERRITORY HEALTH

REGISTRATIONS GRANTED—1968–69

Type	Number	Type	Number
Medical Practitioners	32	Pharmacists	20
Dental Practitioners	6	Optometrists	3
Nurses	302	Veterinary Surgeons	2
Nursing Aides	59		

TABLE 62. NATIONAL FITNESS

ALLOCATION OF ANNUAL GRANT TO STATE NATIONAL FITNESS COUNCILS—1968–69

Item	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
	$	$	$	$	$	$	$
Wages, salaries, allowances, overtime and services not otherwise provided for . . .	10,646	10,646	9,124	9,124	9,124	9,124	57,788
Services to associated groups, including leader training . .	12,178	12,178	9,124	9,124	9,124	9,124	60,852
Grants to voluntary youth organisations	3,034	3,034	2,680	2,680	2,680	1,564	15,672
Subsidies to local national fitness committees	4,572	4,572	3,986	3,986	3,986	2,356	23,458
Services to sports organisations .	1,476	1,476	908	908	908	610	6,286
Development of camps and hostels .	12,178	12,178	9,124	9,124	9,124	9,124	60,852
Total	44,084	44,084	34,946	34,946	34,946	31,902	224,908

TABLE 63. NATIONAL FITNESS

ALLOCATION OF ANNUAL GRANTS TO STATE EDUCATION DEPARTMENTS—1968–69

Item	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
	$	$	$	$	$	$	$
Training of general teachers in physical education—							
(*a*) Short courses . .	1,000	1,000	1,000	600	600	600	4,800
(*b*) Residential courses .	1,000	1,000	1,000	1,000	1,000	1,000	6,000
Provision of bursaries to enable selected teachers to undertake university courses . . .	. .	. .	. .	1,200	1,200	1,200	3,600
Development of health and physical education in practising schools and teachers colleges—							
(*a*) Equipment . . .	600	600	600	400	400	400	3,000
(*b*) Camps for teachers college students . . .	500	500	500	300	300	300	2,400
Publications, films, records, etc. .	968	968	966	966	966	966	5,800
Development of school camping and hostelling—							
(*a*) Equipment of camps and schools . . .	1,000	1,000	1,000	800	800	800	5,400
(*b*) School camping and hostelling	600	600	600	400	400	400	3,000
Total	5,668	5,668	5,666	5,666	5,666	5,666	34,000

TABLE 64. COMMONWEALTH MEDICAL OFFICERS

NUMBER OF CLINICAL EXAMINATIONS BY COMMONWEALTH MEDICAL OFFICERS—BY STATES—1968–69

State	*Departments*	*Seamen*	*Pensioners*	*Others*	*Total*
New South Wales . . .	26,366	1,124	5,674	21	33,185
Victoria	15,936	228	3,991	24	20,179
Queensland	5,668	161	1,948	56	7,833
South Australia . . .	3,783	65	2,440	. .	6,288
Western Australia . . .	3,209	304	1,522	. .	5,035
Tasmania	1,100	4	459	158	1,721
Australian Capital Territory .	7,334	. .	133	1,755	9,222
Northern Territory . . .	1,489	. .	75	1,009	2,573
Commonwealth . .	64,885	1,886	16,242	3,023	86,036

TABLE 65. COMMONWEALTH MEDICAL OFFICERS

Number of Vaccinations by Commonwealth Medical Officers—by States—1968–69

State	*Smallpox*	*Yellow Fever*	*Cholera*	*Typhoid and T.A.B.*	*Tetanus*	*Plague*	*Total*
New South Wales	35,755	1,517	32,788	1,044	418	271	71,793
Victoria	6,253	933	5,953	2,952	58	31	16,180
Queensland	5,757	224	4,928	311	108	39	11,367
South Australia	3,707	295	1,992	822	39	9	6,864
Western Australia	3,267	363	3,561	172	117	2	7,482
Tasmania	1,731	70	1,441	129	46	8	3,425
Australian Capital Territory	3,570	121	4,938	4,041	441	155	13,266
Northern Territory	2,776	49	4,281	1,273	745	28	9,152
Commonwealth	62,816	3,572	59,882	10,744	1,972	543	139,529

TABLE 66. COMMONWEALTH HEALTH LABORATORIES

Number of Pathological Examinations and Laboratory Tests Performed and Number of Patients—1968–69

Health laboratory	*Examinations and tests**	*No. of patients*
Albury	163,343	24,060
Alice Springs	92,544	17,939
Bendigo	274,403	31,601
Cairns	455,034	59,946
Canberra	806,017	160,028
Darwin	223,333	45,774
Hobart	197,430	26,669
Kalgoorlie	50,295	10,657
Launceston	68,941	16,970
Lismore	331,648	46,089
Port Pirie	88,523	17,796
Rockhampton	327,984	62,480
Tamworth	282,162	48,310
Toowoomba	338,066	49,143
Townsville	486,538	57,370
Total	4,186,261	674,832

* Nuffield points score.

TABLE 67. NATIONAL BIOLOGICAL STANDARDS LABORATORY

Summary of all Samples Examined—1968–69

Type	*No. examined*	*Failures*	*Percentage of failures*
For Department of Health—			
Products on the Pharmaceutical Benefits list .	687	146	21.3
Products recommended by the Pharmaceutical Benefits Advisory Committee .	91	25	27.5
New brands of existing Pharmaceutical Benefits	119	29	24.4
Veterinary products	93	66	71.0
Miscellaneous	42	6	14.3
For other Commonwealth departments . .	153	41	26.8
For other authorities	51	2	3.9
Miscellaneous drug samples* . . .	62	26	41.9
Dressings tested†	76	29	38.2
Medical equipment tested‡ . . .	65	6	9.2
Total	1,439	350	25.0

* e.g. Samples of products about which complaints have been received, samples taken prior to granting authority to import products subject to Item 28A—Customs (Prohibited Imports) Regulations.

† Includes 38 dressing samples of which 26 were failures, included in samples examined for other Commonwealth Departments.

‡ No. of batches tested, excluding samples listed above.

TABLE 68. NATIONAL BIOLOGICAL STANDARDS LABORATORY

Reasons for Failure as Percentage of Total Failures—1968–69

*Reason**	*Products for Human Use†*	*Products for Veterinary Use*
	%	%
Safety, contamination or misidentification . .	0.3	..
Sterility	4.2	22.7
Potency	19.0	30.5
Disintegration	8.3	0.9
Uniformity of weight	6.1	..
Acidity or alkalinity	2.3	..
Loss on drying	3.2	0.9
Container content	5.5	4.8
Miscellaneous (e.g. colouring, physical appearance, moisture content, grading, etc.) . . .	11.6	3.8
Particulate matter	2.5	..
Labelling	33.9	53.3
Dressings (various reasons other than sterility) .	10.2	..

* These reasons are listed in order of seriousness.

† This figure represents the percentage of total failures due to the specific cause. Where a product has failed for more than one reason it is included in more than one category.

TABLE 69. NATIONAL BIOLOGICAL STANDARDS LABORATORY

SAFETY TESTS PERFORMED—1968–69

Type	*No. examined*	*Failed*	*Indeterminable*
Sterility	613	27	4
Histamine-like substances . .	40	. .	. .
Toxicity	141	. .	1
Pyrogens	129	1	3
Disposable medical equipment .	99	1	. .

TABLE 70. COMMONWEALTH ACOUSTIC LABORATORIES

CASES EXAMINED—1968–69

New cases attending laboratories	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Pensioners . . .	3,874	2,822	2,291	1,141	1,020	453	11,601
Repatriation . . .	2,702	737	606	431	401	102	4,979
Persons under 21 years .	2,069	1,358	2,074	983	910	397	7,791
Armed Forces (Serving) .	402	171	314	161	60	186	1,294
Commonwealth Departments	168	213	175	102	50	31	739
State Departments . .	1	. .	182	. .	. .	. .	183
Miscellaneous . . .	65	36	563	112	125	113	1,014
Total . . .	9,281	5,337	6,205	2,930	2,566	1,282	27,601
Civil Aviation referrals .	206	271	129	111	147	16	880

TABLE 71. COMMONWEALTH ACOUSTIC LABORATORIES

CALAID HEARING AIDS FITTED—1968–69

Calaids fitted	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Pensioners . . .	3,444	2,523	2,245	1,016	994	431	10,653
Repatriation . . .	1,859	779	647	737	551	170	4,743
Persons under 21 years .	589	453	262	273	133	47	1,757
Armed Forces (Serving) .	4	9	2	3	2	. .	20
Commonwealth Departments	5	7	4	23	1	1	41
Total . . .	5,901	3,771	3,160	2,052	1,681	649	17,214

TABLE 72. COMMONWEALTH ACOUSTIC LABORATORIES

CALAID HEARING AIDS ON LOAN 30 JUNE, 1969

Calaids on loan	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Pensioners . . .	3,498	2,587	2,331	1,325	1,008	430	11,179
Repatriation . . .	6,028	5,275	2,429	2,112	1,935	667	18,446
Persons under 21 years .	2,468	3,044	1,754	1,065	607	391	9,329
Armed Forces (Serving) .	40	33	13	13	4	. .	103
Commonwealth Departments	1,088	33	21	447	271	8	1,868
Total . . .	13,122	10,972	6,548	4,962	3,825	1,496	40,925

TABLE 73. COMMONWEALTH X-RAY AND RADIUM LABORATORY

Expenditure from the National Welfare Fund on Radio-isotopes for Medical Purposes—1955–56 to 1968–69

Year ended 30 June	*Expenditure*	*Year ended 30 June*	*Expenditure*
	$		$
1956	6,172	1963	35,936
1957	13,900	1964	55,874
1958	15,954	1965	67,942
1959	21,382	1966	81,755
1960	19,368	1967	132,201
1961	27,736	1968	154,764
1962	28,988	1969	257,277

TABLE 74. NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL

Grants made from the Medical Research Endowment Fund—1968–69*

Universities, institutions and hospitals	*Salaries, graduate research workers*	*Research scholarship stipends*	*Technical assistance maintenance and equipment*	*Travelling*	*Total*
	$	$	$	$	$
Universities					
Adelaide	33,346	48,304	55,110	13,142	149,902
Melbourne	131,114	33,405	150,999	217	315,735
Monash	39,470	23,595	65,717	..	128,782
New South Wales	49,345	11,920	36,625	243	98,133
Queensland	10,355	6,680	45,230	..	62,265
Sydney	64,752	81,731	78,602	365	225,450
Western Australia	42,545	16,620	69,468	14,800	143,433
Tasmania	..	..	3,660	..	3,660
College of Townsville	..	..	2,500	..	2,500
Total	370,927	222,255	507,911	28,767	1,129,860
Institutions and hospitals					
New South Wales	74,120	9,000	31,794	19,565	134,479
Queensland	2,450	..	5,750	3,090	11,290
South Australia	..	5,000	13,400	520	18,920
Victoria†	216,141	30,000	102,107	..	348,248
Western Australia	..	..	..	3,000	3,000
Total	292,711	44,000	153,051	26,175	515,937
Grand Total	663,638	266,255	660,962	54,942	1,645,797

* Recommended by 66th Session of Council, May 1968, for use in calendar years 1968 and 1969 and 67th Session, October 1968 for use in calendar year 1969.

† Includes grants totalling $305,215 awarded to the Walter and Eliza Hall Institute of Medical Research, Melbourne.

TABLE 75. COMMONWEALTH GRANTS

Red Cross Blood Transfusion Service—1953–54 to 1968–69

Year ended 30 June	*Commonwealth grant*
	$'000
1954	88
1955	138
1956	172
1957	214
1958	251
1959	263
1960	282
1961	315
1962	349
1963	369
1964	402
1965	435
1966	490
1967*	974
1968	656
1969	765

* The figure for this year reflects an alteration in accounting procedures during 1966–67, when annual payments were replaced by quarterly payments. The grant relates to expenditure incurred by the Society during the period 1 July 1965 to 31 March 1967.

TABLE 76. COMMONWEALTH GRANTS

Red Cross Blood Transfusion Service—by States—1968–69

State	*Commonwealth Grant*
	$'000
New South Wales	196
Victoria	193
Queensland	139
South Australia	115
Western Australia	75
Tasmania	25
Australian Capital Territory	8
Northern Territory	14
Commonwealth	765

TABLE 77. COMMONWEALTH GRANTS

Home Nursing Subsidy Scheme—1956–57 to 1968–69

Year ended 30 June	*Commonwealth Grant*
	$'000
1957	4
1958	36
1959	69
1960	107
1961	156
1962	215
1963	289
1964	372
1965	465
1966	546
1967	664
1968	765
1969	956

TABLE 78. COMMONWEALTH GRANTS

Home Nursing Subsidy Scheme—by States—1968–69

State	*Commonwealth Grant*
	$'000
New South Wales	300
Victoria	257
Queensland	190
South Australia	38
Western Australia	157
Tasmania	14
Commonwealth	956

TABLE 79. COMMONWEALTH GRANTS

FREE MILK FOR SCHOOL CHILDREN—1950–51 TO 1968–69

Year ended 30 June	*Commonwealth Grant*	*Year ended 30 June*	*Commonwealth Grant*
	$'000		*$'000*
1951	72	1960	6,719
1952	1,630	1961	7,120
1953	3,043	1962	7,483
1954	3,999	1963	7,454
1955	4,475	1964	7,775
1956	4,811	1965	8,059
1957	5,214	1966	8,493
1958	5,511	1967	9,021
1959	6,137	1968	9,831
		1969	10,053

TABLE 80. COMMONWEALTH GRANTS

FREE MILK FOR SCHOOL CHILDREN—BY STATES—1968–69

State	*No. of children* as at 31 Dec. 1968*	*Commonwealth grant 1968–69*
	000's	*$'000*
New South Wales	648	3,374
Victoria	495	2,636
Queensland	263	1,545
South Australia	188	1,061
Western Australia	148	797
Tasmania	62	421
Australian Capital Territory	20	109
Northern Territory	14	110
Commonwealth	1,838	10,053

* These figures represent the approximate number of school children eligible to participate in the free milk scheme.

TABLE 81. COMMONWEALTH GRANTS

Mental Health Institutions—by States—1955–56 to 1968–69

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
	$'000	*$'000*	*$'000*	*$'000*	*$'000*	*$'000*	*$'000*
1955–56—							
Commonwealth grant . .	418	892	133	24	20	59	1,546
Net State expenditure . .	835	1,783	266	49	40	119	3,093
Total expenditure . . .	1,253	2,674	400	73	60	179	4,639
1956–57—							
Commonwealth grant . .	767	1,054	176	257	104	138	2,496
Net State expenditure . .	1,534	2,109	352	514	207	276	4,993
Total expenditure . . .	2,301	3,163	528	771	311	414	7,489
1957–58—							
Commonwealth grant . .	648	1,091	228	304	58	183	2,513
Net State expenditure . .	1,297	2,181	456	609	117	366	5,026
Total expenditure . . .	1,945	3,272	685	913	175	548	7,538
1958–59—							
Commonwealth grant . .	394	1,239	237	245	34	92	2,241
Net State expenditure . .	787	2,478	474	489	69	184	4,482
Total expenditure . . .	1,181	3,718	711	734	103	275	6,722
1959–60—							
Commonwealth grant . .	718	1,036	149	184	74	134	2,295
Net State expenditure . .	1,436	2,073	298	367	147	268	4,590
Total expenditure . . .	2,154	3,109	448	551	221	402	6,885
1960–61—							
Commonwealth grant . .	866	168	195	91	31	104	1,454
Net State expenditure . .	1,732	335	391	183	61	208	2,909
Total expenditure . . .	2,597	503	586	274	92	312	4,363
1961–62—							
Commonwealth grant . .	1,297	..	141	56	154	..	1,648
Net State expenditure . .	2,595	..	283	111	308	..	3,297
Total expenditure . . .	3,892	..	424	167	462	..	4,945
1962–63—							
Commonwealth grant . .	1,295	..	75	104	116	..	1,590
Net State expenditure . .	2,590	..	150	208	232	..	3,181
Total expenditure . . .	3,885	..	226	313	347	..	4,771
1963–64—							
Commonwealth grant . .	982	..	108	173	332	..	1,595
Net State expenditure . .	1,964	..	216	345	663	..	3,189
Total expenditure . . .	2,947	..	324	518	995	..	4,784
1964–65—							
Commonwealth grant . .	659	711	225	265	447	197	2,504
Net State expenditure . .	1,319	1,423	449	530	893	394	5,007
Total expenditure . . .	1,978	2,134	674	794	1,340	591	7,511
1965–66—							
Commonwealth grant . .	1,717	1,567	146	242	338	529	4,539
Net State expenditure . .	3,434	3,134	293	484	675	1,058	9,078
Total expenditure . . .	5,151	4,700	439	726	1,013	1,586	13,617
1966–67—							
Commonwealth grant . .	2,217	1,192	288	193	260	823	4,973
Net State expenditure . .	4,434	2,385	576	385	521	1,646	9,947
Total expenditure . . .	6,652	3,577	863	578	781	2,469	14,920
1967–68—							
Commonwealth grant . .	2,095	1,382	196	64	148	358	4,243
Net State expenditure . .	4,191	2,763	391	127	297	717	8,485
Total expenditure . . .	6,256	4,144	587	190	445	1,075	12,728
1968–69—							
Commonwealth grant . .	1,925	1,200	323	433	375	399	4,655
Net State expenditure . .	3,851	2,400	645	865	751	798	9,310
Total expenditure . . .	5,776	3,600	968	1,298	1,126	1,197	13,965
Total—							
Commonwealth grant . .	15,999	11,533	2,622	2,634	2,490	3,016	38,293
Net State expenditure . .	31,999	23,064	5,241	5,267	4,981	6,033	76,585
Total expenditure . . .	47,998	34,596	7,863	7,900	7,471	9,048	114,877

Apparent minor errors in totals are due to 'rounding off'.

APPENDIX 2—PUBLICATIONS 1968—1969

SCHOOL OF PUBLIC HEALTH AND TROPICAL MEDICINE

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Advisor, Senate Select Committee, Medical and Hospital Costs in Australia

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